

# **A Phase I Archaeological Resources Survey of the 17.6-Mile Urquhart- Graniteville Transmission Line Corridor**

**Aiken County, South Carolina**



September 2014

**A Phase I Archaeological Resources Survey of the 17.6-Mile Urquhart-Graniteville  
Transmission Line Corridor,  
Aiken County, South Carolina.**

Final Report

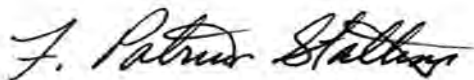
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September 2014

## Management Summary

In March 2014, Brockington and Associates, Inc. (Brockington), contracted with UC-Synergetic, LLC to conduct an Archaeological Resources Survey (ARS) of the Urquhart-Graniteville transmission line corridor in Aiken County, South Carolina. Brockington was concurrently tasked with conducting a Literature Review and Windshield Reconnaissance of historic architectural resources within the study area. Both Brockington projects were conducted for UC-Synergetic, LLC on behalf of South Carolina Electric and Gas (SCE&G), in preparation for proposed capacity upgrades of the transmission line from 115kV to 230kV, which will require a Certificate of Public Convenience and Necessity (CPCN) by the South Carolina Public Service Commission (SCPSC). The goal of the archaeological survey and architectural windshield reconnaissance was to determine whether any historic properties (i.e., sites, buildings, structures, objects, or districts listed on or eligible for the National Register of Historic Places [NRHP]) may be affected by this transmission line upgrade project.

SCE&G proposes to upgrade its infrastructure along approximately 17.6 miles of the existing transmission line corridor. This existing corridor is 100 feet (ft) (approximately 30 meters [m]) wide and constitutes the project right of way (ROW). No new ROW is anticipated for the project. Brockington archaeologists conducted archival research of the extant corridor and a two kilometer- (km) radius surrounding the corridor. This research revealed that there are nine previously recorded archaeological sites within the two-km buffer, including three resources that are listed on the National Register of Historic Places (NRHP). However, Brockington recommends that none of these previously identified resources will be affected by the proposed upgrades to the extant transmission line corridor.

Brockington archaeologists also conducted an intensive shovel test survey of the entire 17.6-mile corridor. Shovel tests were excavated at 30-m intervals along a single transect placed down the center of the corridor. Five new archaeological resources were identified as a result of this survey, including three sites (38AK1089, 38AK1090, and 38AK1091) and two isolated finds (Isolate 1 and Isolate 2). Brockington recommends that none of these five archaeological resources is eligible for the National Register of Historic Places (NRHP), and that no further management of these resources is necessary. Brockington further recommends that, as no newly or previously recorded archaeological resources will be impacted by the proposed infrastructure upgrades, the project should be allowed to proceed.

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## 1.0 Introduction and Methods of Investigation

### 1.1 Introduction

In March 2014, Brockington and Associates, Inc. (Brockington), contracted with UC-Synergetic, LLC to conduct an Archaeological Resources Survey (ARS) of the Urquhart-Graniteville transmission line corridor in Aiken County, South Carolina. Brockington was concurrently tasked with conducting a Literature Review and Windshield Reconnaissance of historic architectural resources within the study area. Both projects were conducted for UC-Synergetic, LLC on behalf of South Carolina Electric and Gas (SCE&G), in preparation for proposed capacity upgrades of the transmission line from 115kV to 230kV, which will require a Certificate of Public Convenience and Necessity (CPCN) by the South Carolina Public Service Commission (SCPSC).

The goal of the archaeological survey and architectural windshield reconnaissance was to determine whether any historic properties (i.e., sites, buildings, structures, objects, or districts listed on or eligible for the National Register of Historic Places [NRHP]) may be affected by this transmission line upgrade project. Both the survey and the reconnaissance were conducted in accordance with Section 106 of the National Historic Preservation Act of 1966, as amended (16 USC 470). Information pertaining to the architectural literature review and reconnaissance is included in a separate letter report (see Stallings 2014). This report provides the results of the ARS.

SCE&G proposes to upgrade its infrastructure along approximately 17.6 miles of the existing transmission line corridor (Figures 1.1 and 1.2). The survey corridor passes through agricultural and wooded areas as well as areas that have been developed in recent years. The corridor extends from SCE&G's Urquhart Plant near Beech Island, South Carolina to an electrical substation in Graniteville, South Carolina. This existing corridor is 100 ft (approximately 30 m) wide and constitutes the project right of way (ROW). No new ROW is anticipated for the project. The current 115kV corridor was first constructed in 1950 and has not been previously surveyed for cultural resources. Anticipated disturbance from the proposed project includes excavation of select locations to place new structures within the existing corridor.

This ARS included a review of previous cultural resource investigations in the project area, an archaeological survey of the corridor, and an architectural survey of approximately two km (1.25 miles) surrounding the corridor. Jana Futch, the project manager for this ARS, reviewed the ArchSite program for previous cultural resource surveys and previously identified archaeological sites and historical architectural resources within the two km survey buffer. Scott Kitchens conducted additional research at the state site files office at the South Carolina Institute of Archaeology and Anthropology (SCIAA) and the South Carolina Department of Archives and History (SCDAH). The archaeological survey was conducted from April 28 to May 9, 2014, and was completed by Jana Futch, John O'Donnell, James Page, Cristian LaRosa, and Bronwen Morgan. The architectural literature review and windshield reconnaissance was conducted from May 12 to 14, 2014, and was completed by Patricia Stallings. A separate letter report detailing the results of the architectural reconnaissance was provided to UC Synergetic in developing a viewshed sensitivity assessment.



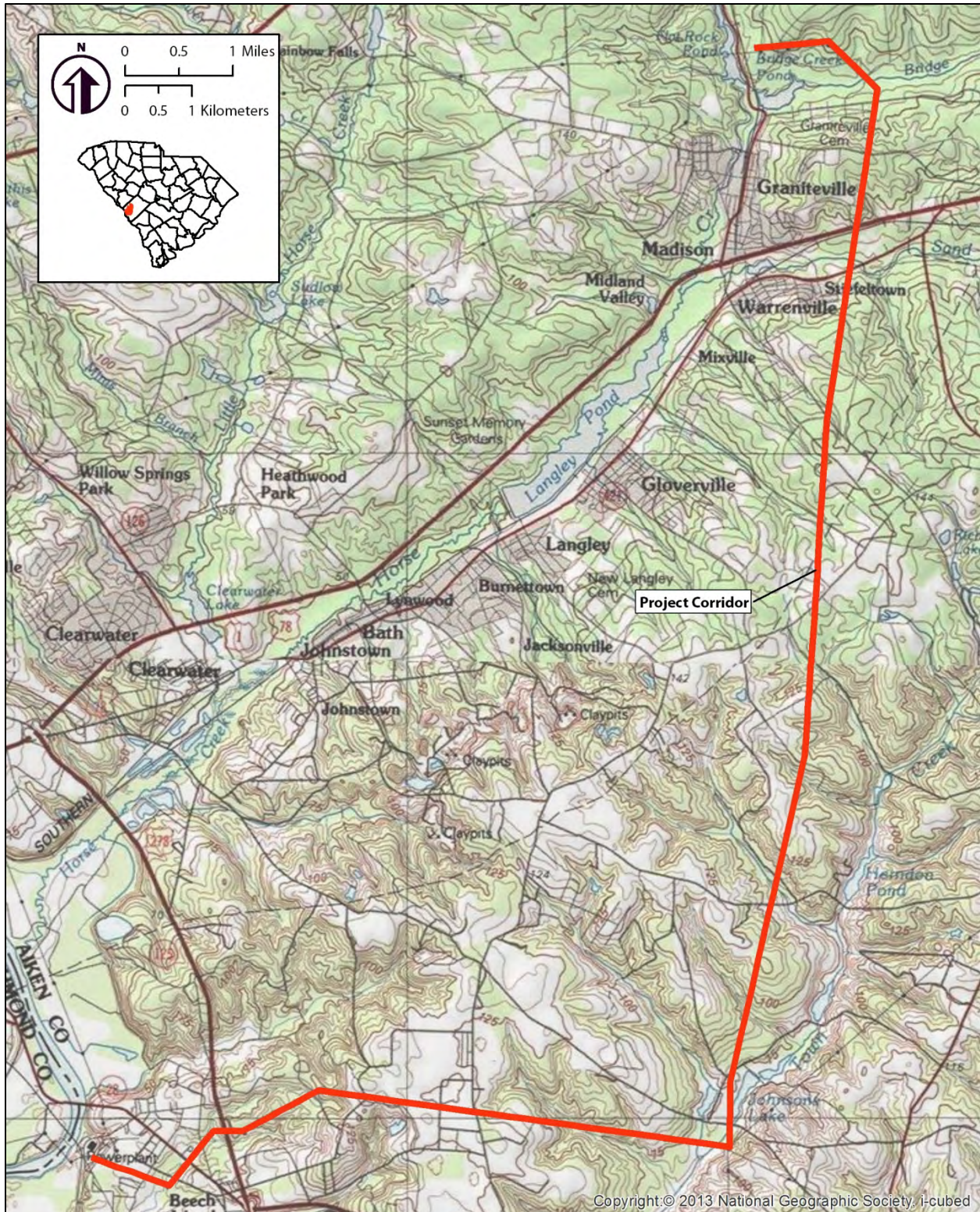


Figure 1.1 Location of the 17.6-mile of the Urquhart to Graniteville Transmission Line Corridor, Aiken County, South Carolina (USGS Quadrangle Maps, 7.5 minute series, *Graniteville* [1980] and *Aiken* [1980]).



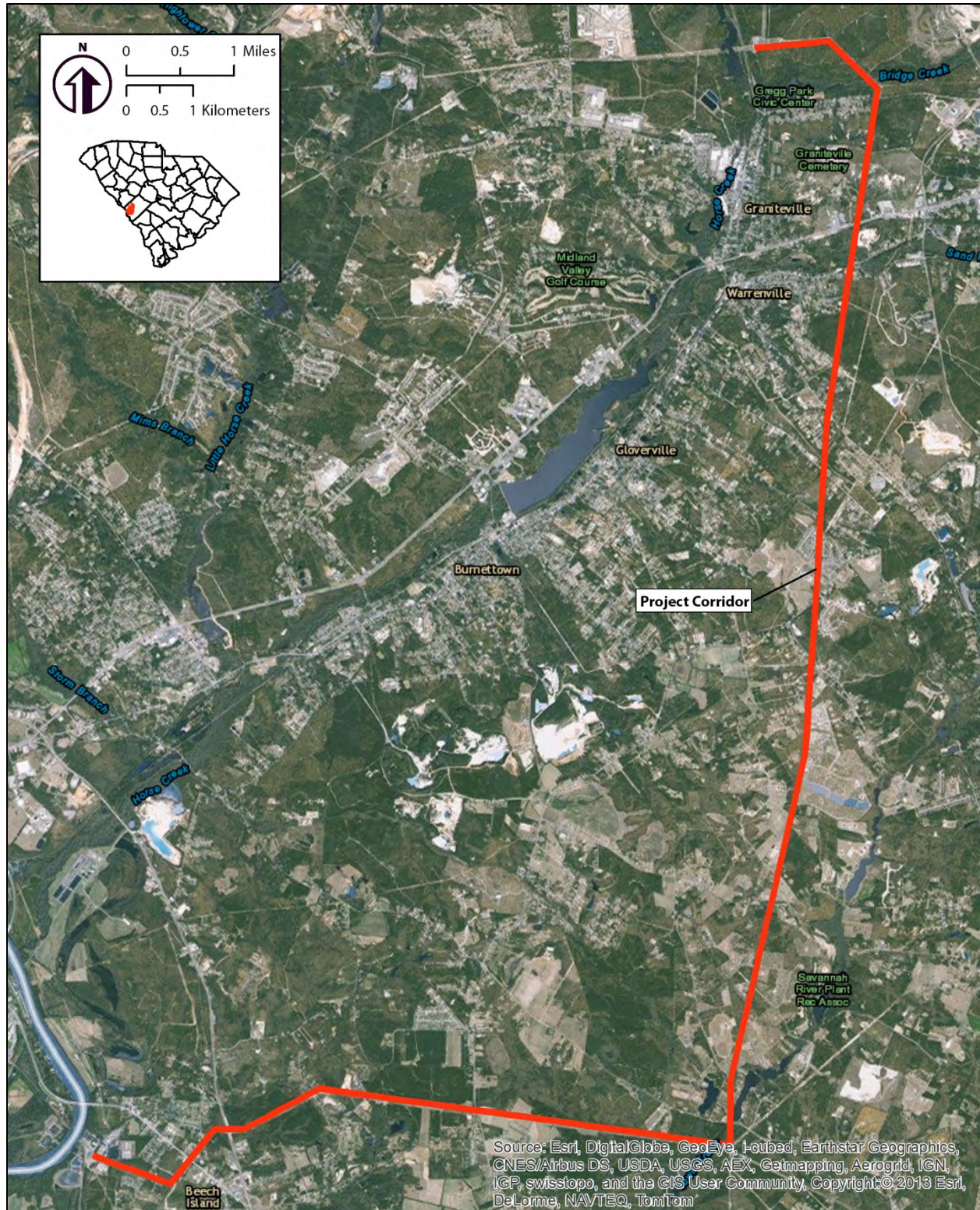


Figure 1.2 Location of the 17.6-mile of the Urquhart to Graniteville Transmission Line Corridor, Aiken County, South Carolina on modern aerial imagery (Esri 2011).

## 1.2 Methods of Investigation

### 1.2.1 Project Objective

The objective of these cultural resource investigations was to assess the potential for the proposed replacement of the transmission line structures for the 17.6-mile transmission line corridor to affect historic properties. Tasks performed to accomplish this objective include background research, archaeological survey, and architectural reconnaissance. Additional tasks undertaken by Brockington include laboratory analysis, curation, and report writing. Methods employed for each of these tasks are described below.

### 1.2.2 Background Research

The project manager searched the ArchSite program for previous cultural resource surveys and previously identified archaeological sites and historical architectural resources within two km (1.25 miles) of the project corridor. Brockington staff conducted additional research at SCIAA and the SCDAH. This research focused on specific reports and maps associated with studies identified through ArchSite. Previous cultural resource investigations and recorded cultural resources within two km of the corridor are discussed in Chapter 4. The purposes of the archival research were to identify known Pre- or Post-Contact archaeological sites and buildings that are listed on or eligible for listing on the NRHP and to develop a historical context that would assist in evaluating cultural resources identified during the field investigations. The principal investigator also researched primary and secondary resources pertaining to the Aiken area, including Mills (1979 [1825]), the series of historic topographic maps in the University of South Carolina's Thomas Cooper Library digital archives, Strother (2008), Vandervelde (1999), and Hale (2000).

### 1.2.3 Field Investigations

Field survey entailed the systematic examination of the project corridor following *South Carolina Standards and Guidelines for Archaeological Investigations* (COSCAPA et al. 2013). The proposed upgrades to the transmission line structures and equipment will be within the existing ROW. Brockington archaeologists examined the transmission line corridor by means of a single shovel test transect located on the corridor. Depending upon the topography within the corridor itself, this transect was either excavated down the center of the corridor, or near the north-central/east-central portion of the corridor.

We excavated shovel tests at 100-ft (30-m) intervals along the transect. Each shovel test measured approximately one foot in diameter and was excavated into culturally sterile subsoil. The fill from these tests was sifted through one-quarter-inch mesh hardware cloth. Information relating to each shovel test and soil profile was recorded in field notebooks. This information included the content (e.g., presence or absence of cultural materials) and context (e.g., soil color, texture, and stratification) of each test. Investigators also visually inspected the ground surface where possible. All shovel tests were backfilled upon completion.

When surface or subsurface archaeological materials were encountered, the interval between shovel tests was reduced to 15 m (33 ft) to delimit site boundaries. Per COSCAPA (2013:19), two consecutive negative shovel tests (at 15-m [33-ft] intervals) are considered sufficient to provide an edge determination for a site boundary. An archaeological site is a locale yielding



three or more Pre- or Post-Contact artifacts within a 100-ft radius. Locales where structures, berms, soils stains, or other features are present may also be classified as sites. Locales that produce fewer than three contemporaneous artifacts are identified as isolated finds (COSCAPA et al. 2013). Also, obviously redeposited artifacts (even if greater than three in number) are typically defined as an isolated find rather than a site unless there is a compelling reason for doing otherwise.

#### *1.2.4 Laboratory Analysis and Curation*

In Brockington's laboratory, artifacts from the field are washed by laboratory technicians. After washing, artifacts are allowed to air dry. Provenience numbers are assigned to each excavation bag. Within each provenience, artifacts are sorted by criteria such as material class, manufacture method, object form, and decoration. Each group of artifacts is counted and weighed, then bagged in archivally stable bags and assigned a catalog number. All artifacts are identified and classified based on their material, cultural association, and function, among other attributes. All artifact and provenience data is compiled in a Microsoft Access (2010) database.

Following review and acceptance of the final report, all artifacts, project maps, field notes, analysis forms, photographs, and other information generated by this investigation will be prepared for storage at a federally approved curation repository following standards outlined in 36 CFR 79 (*Curation of Federally-Owned and Administered Archaeological Collections: Final Rule*). These standards include, but are not limited to, the packaging of all materials in archivally stable bags and boxes.

Artifacts, maps and photograph files associated with this project currently are stored at the Brockington's Norcross office. Upon acceptance of the final report, Brockington and Associates, Inc. will deliver the curation package to the SCIAA.

#### *1.2.5 Assessing NRHP Eligibility*

All cultural resources encountered are assessed as to their significance based on the criteria of the NRHP. As per 36 CFR 60.4, there are four broad evaluative criteria for determining the significance of a particular resource and its eligibility for the NRHP. Any resource (building, structure, site, object, or district) may be eligible for the NRHP that:

- A. is associated with events that have made a significant contribution to the broad pattern of history;
- B. is associated with the lives of persons significant in the past;
- C. embodies the distinctive characteristics of a type, period, or method of construction, or represents the work of a master, possesses high artistic value, or represents a significant and distinguishable entity whose components may lack individual distinction; or
- D. has yielded, or is likely to yield, information important to history or prehistory.

A resource may be eligible under one or more of these criteria. Criteria A, B, and C are most frequently applied to historic buildings, structures, objects, non-archaeological sites (e.g., battlefields, natural features, designed landscapes, or cemeteries), or districts. The eligibility of archaeological sites is most frequently considered with respect to Criterion D. Also, a general



guide of 50 years of age is employed to define “historic” in the NRHP evaluation process. That is, all resources greater than 50 years of age may be considered. However, more recent resources may be considered if they display “exceptional” significance (Sherfy and Luce n.d.).

Following *National Register Bulletin: How to Apply the National Register Criteria for Evaluation* (Savage and Pope 1998), evaluation of any resource requires a twofold process. First, the resource must be associated with an important historical context. If this association is demonstrated, the integrity of the resource must be evaluated to ensure that it conveys the significance of its context. The applications of both of these steps are discussed in more detail below.

Determining the association of a resource with a historical context involves five steps (Savage and Pope 1998). First, the resource must be associated with a particular facet of local, regional (state), or national history. Secondly, one must determine the significance of the identified historical facet/context with respect to the resource under evaluation. A lack of Native American archaeological sites within a project area would preclude the use of contexts associated with the Pre-Contact use of a region.

The third step is to demonstrate the ability of a particular resource to illustrate the context. A resource should be a component of the locales and features created or used during the historical period in question. For example, early nineteenth-century farmhouses, the ruins of African American slave settlements from the 1820s, and/or field systems associated with particular antebellum plantations in the region would illustrate various aspects of the agricultural development of the region prior to the Civil War. Conversely, contemporary churches or road networks may have been used during this time period but do not reflect the agricultural practices suggested by the other kinds of resources.

The fourth step involves determining the specific association of a resource with aspects of the significant historical context. Savage and Pope (1998) define how one should consider a resource under each of the four criteria of significance. Under Criterion A, a property must have existed at the time that a particular event or pattern of events occurred, and activities associated with the event(s) must have occurred at the site. In addition, this association must be of a significant nature, not just a casual occurrence (Savage and Pope 1998). Under Criterion B, the resource must be associated with historically important individuals. Again, this association must relate to the period or events that convey historical significance to the individual, not just that this person was present at this locale (Savage and Pope 1998). Under Criterion C, a resource must possess physical features or traits that reflect a style, type, period, or method of construction; display high artistic value; or represent the work of a master (an individual whose work can be distinguished from others and possesses recognizable greatness) (Savage and Pope 1998). Under Criterion D, a resource must possess sources of information that can address specific important research questions (Savage and Pope 1998). These questions must generate information that is important in reconstructing or interpreting the past (Butler 1987; Townsend et al. 1993). For archaeological sites, recoverable data must be able to address specific research questions.

After a resource is associated with a specific significant historical context, one must determine which physical features of the resource reflect its significance. One should consider the types of

resources that may be associated with the context, how these resources represent the theme, and which aspects of integrity apply to the resource in question (Savage and Pope 1998). As in the antebellum agriculture example given above, a variety of resources may reflect this context (farmhouses, ruins of slave settlements, field systems, etc.). One must demonstrate how these resources reflect the context. The farmhouses represent the residences of the principal landowners who were responsible for implementing the agricultural practices that drove the economy of the South Carolina area during the antebellum period. The slave settlements housed the workers who conducted the vast majority of the daily activities necessary to plant, harvest, process, and market crops.

Once the above steps are completed and the association with a historically significant context is demonstrated, one must consider the aspects of integrity applicable to a resource. Integrity is defined in seven aspects of a resource; one or more may be applicable depending on the nature of the resource under evaluation. These aspects are location, design, setting, materials, workmanship, feeling, and association (36 CFR 60.4; Savage and Pope 1998). If a resource does not possess integrity with respect to these aspects, it cannot adequately reflect or represent its associated historically significant context. Therefore, it cannot be eligible for the NRHP. To be considered eligible under Criteria A and B, a resource must retain its essential physical characteristics that were present during the event(s) with which it is associated. Under Criterion C, a resource must retain enough of its physical characteristics to reflect the style, type, etc., or work of the artisan that it represents. Under Criterion D, a resource must be able to generate data that can address specific research questions that are important in reconstructing or interpreting the past.

## 2.0 Environmental Overview

The project corridor is located just south of the Fall Line, in the interface between the Coastal Plain and the Piedmont. This area is known as the Fall Line Hills district of the Southern Coastal Plain physiographic province. More specifically, it is located in the middle portion of the Savannah River Valley, a major watershed that slopes from more than 5,000 feet in the Appalachians to sea level at the Atlantic. The environmental overview presented here highlights the nature, regional geology, soils, climate, and ecosystems of the project area.

### 2.1 Geology and Geomorphology

The Savannah River Valley has undergone a great deal of complex tectonic alteration since the formation of the Appalachians, some 500 million years ago. Built largely on folded, upturned, and metamorphosed rocks, the rolling hills and narrow stream valleys of the Piedmont extend southeastward from the higher Blue Ridge and terminate abruptly at the Fall Line, where they dive under the later sediments of the Coastal Plain. Magma, extruded through the underlying mantle, has shaped those hills and valleys. It has also contributed to the diversity of surface minerals by creating dikes and expanses of granitic and metavolcanic rocks. Surface geology in the Piedmont is typically masked by saprolite, a layer of decomposed rock consisting of clay-sized iron oxides, aluminum, quartz, and silica minerals (Hodler and Shretter 1986:36).

In contrast, the Coastal Plain has a distinctly maritime origin. Between 135 million to 11,000 years ago, sea level changes built a succession of barrier islands extending from the Fall Line to the modern coast of South Carolina and Georgia. The area nearest the Piedmont shows the most dynamic environment with the deposition of a belt of deep sands (the Fall Line Hills) eroded from the Piedmont edge. Much of the remainder of the Coastal Plain was built up through marine settling of clay and silty sands. Vast deposits of limestone were created around 25 million years ago across the Florida, Georgia, South Carolina, and Alabama Coastal Plains. The Floridan aquifer developed in conjunction with this limestone deposition, and this aquifer remains a significant source of fresh water even today (Hodler and Shretter 1986:32-33). Surface sediments are widely variable given that the flat topography tends toward marshy expanses between very low, broad interfluvial ridges (Hodler and Shretter 1986:17).

The Savannah River begins in the Blue Ridge of southwestern North Carolina and flows southeast for more than 313 miles, forming the boundary between South Carolina and Georgia, before it empties into the Atlantic Ocean. The Savannah River Basin encompasses more than 10,469 square miles divided into nine separate hydrologic units. The primary tributaries of the Savannah include the Seneca River, Tugaloo River, Broad River, Little River, Stevens Creek, and Brier Creek. In past times, the upper section of the Savannah River flowed swiftly through the rolling hills of the Piedmont to the shoals at the Fall Line. South of the shoals the flatter terrain broadened the river and created a series of wide terraces bordered by back channels, meanders, and oxbow swamps. On the Coastal Plain, the wetlands and natural levees are occasionally interrupted by limestone outcrops, such as Silver Bluff. Tidal action begins to have an influence on the river as much as 28 miles upstream from the ocean, where it starts to form a complex deltaic estuary.

The alluvial deposits of the Savannah date back at least 150,000 years to the Early Pleistocene (Segovia 1985:16). After periods of downcutting and stability through the Pleistocene, the transition to the Holocene (around 12,000 years ago) witnessed a river that probably fluctuated drastically seasonally. The floodplain above the Fall Line was unstable, with steep scarps and rapid colluviation (Segovia 1985:21). From 10,000 to 7000 years before the present (BP), there appears to have been “sedimentary pulsing” or deposition of fine- to medium-grained sands, during periods of deforestation, presumably as a result of climatic change (Segovia 1985:22). Around 3600 BP the river became fairly stable up through the historic period (circa 300 BP), reflecting a slow deposition rate of around one centimeter (cm) per 100 years (Segovia 1985:26).

European settlement began in the mid-1700s with the founding of Augusta. Prior to that time, European contact was limited to trading arrangements and military expeditions. Settlement occurred slowly at first, with settlers locating their farms and plantations alongside the river and major tributaries. Cutting of the forests was *de rigueur* for the earliest settlers, and it resulted in an increase of sheetwash erosion during the wetter seasons. Sediment loading swelled the river and led to increases in seasonal flood events beginning at least as early as 1796 (Speer and Gamble 1964).

With the building of the Augusta Canal in 1845, upriver settlement rapidly increased, with large expanses of land being cleared for cotton agriculture. Soil loss in the Piedmont of South Carolina and Georgia approached an average of nine to 12 inches by the early twentieth century (Trimble 1974:Figure 17). Below the Fall Line, sedimentation rates became as much as 30 times or more their normal rate (Segovia 1985:26). The USGS (1999) reports the bankfull discharge (amount associated with the most frequent flood interval) at 3,300 cubic meters per second (cms). On a monthly scale, data from 1907 through 1910 show a range in flow from 2,640 to 5,670 cms. According to USGS records (between 1796 and 1950), five years (1796, 1888, 1908, 1929, and 1930) witnessed floods exceeding 8,500 cms, the largest being 10,800 cms in 1796 (Elliott and Doyon 1981:51; Speer and Gamble 1964:318).

In 1951, the US Army Corps of Engineers built the Clarks Hill Dam, forming the 72,000-acre Clarks Hill Lake by 1954 (known as J. Strom Thurmond Lake in South Carolina). This was followed by the 56,000-acre Lake Hartwell in 1963 and the 27,000-acre Richard B. Russell Reservoir in 1983. The Clarks Hill Dam, about 40 miles north of Augusta, stabilized sedimentation rates downstream, while the now-flooded Piedmont portions of the Savannah experience no further severe downcutting. Today, the annual average flow of the Savannah is 270 cms at Augusta, and around 343 cms as measured along the lower sections of the river (USGS 1999). This is one of the largest normal discharges of any river in the Southeast.

## 2.2 Topography and Soils

The project corridor passes through rolling hills of the upper Coastal Plain. The northeastern portion of the corridor near Graniteville contains sections with very variable topography and relief, while hills within the southwestern portion closer to Beech Island are more gently sloped. The corridor passes through agricultural and wooded areas, as well as areas that have been developed in recent years for residential and recreational purposes, like horse riding. Figure 2.1 presents a typical view of an eroded portion of the corridor, near the northeastern end of the project. Figure 2.2 presents a typical view of the gently rolling hills more common to the

southwestern and middle portions of the corridor. Figure 2.3 shows the soil types present within the 17.6-mile corridor.



Figure 2.1 Typical view of the northeastern portion of the project corridor, showing erosion; view is to the southwest.





Figure 2.2 Typical view of the middle section of the project corridor, looking south to horse jumping arena.

As mentioned above, surface sediments in the project area highly variable, though most eroded sections of the corridor feature exposed clays and most upland areas contain pockets of deep sand. The Vacluse-Ailey complex has been mapped on many of the project corridor's steeper slopes (USDA 2014). These are well-drained soils that form on marine terraces and can range from 2 to 25 percent slopes (Rogers 1985). A typical soil profile contains loamy sand from the surface to about 25 cm, over sandy clay loam that extends well below a meter. Given that the corridor was first cleared decades ago, and that it has been constantly maintained since that time, soils on the steeper slopes have become drastically eroded. In areas mapped with Vacluse-Ailey complex soils, Brockington archaeologists usually encountered dense, compact clays near or at the surface.

Several areas of the corridor that are less sloped, and are therefore notable because they are usually less eroded, have been mapped with the Fuquay Series of soils (USDA 2014). Soils within this series form on broad ridges and adjoining side slopes, and are well drained (Rogers 1985). A typical soil profile contains sand from the surface to about 20 cm below surface, over loamy sand to about 54 cm below surface, before encountering sandy clay loam subsoil (Rogers 1985). Most of the deepest and most intact soil profiles Brockington recorded are within pockets of Fuquay Series or similar soils, like Troup Series.



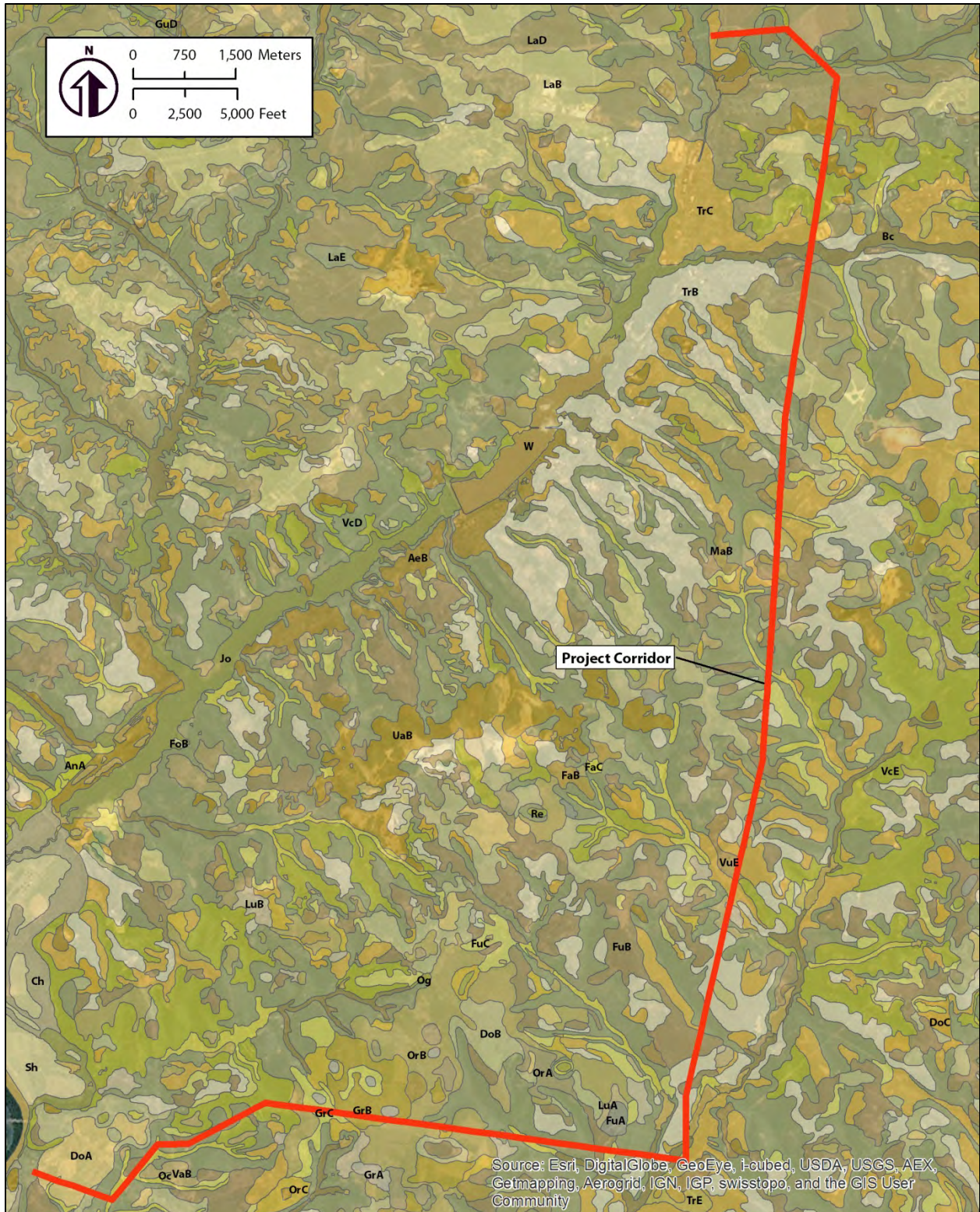


Figure 2.3 Soils within the 17.6-mile Urquhart to Graniteville Transmission Line Corridor.

### 2.3 Temperatures and Climate

The Middle Savannah Region falls within a warm, temperate subtropical climatic zone, with long, hot summers and short, cool winters. The typical daily January temperature in Aiken County, South Carolina, is a maximum of about 55°F, with a minimum of around 33°F, and averages close to 47°F. The typical daily July temperature is a maximum of 90°F, with a minimum of about 70°F, and averages around 80°F. The region usually has more than 240 frost-free days per year, with fewer than 60 days per year of temperatures below 32°F. The first frost typically occurs after mid-November, while the last frost usually takes place after March (Hodler and Schretter 1986:38-43; Rogers 1985:1-2, 94-95).

Modern average total annual rainfall in Aiken County is approximately 120 cm (48 inches). Even though monthly precipitation tends to peak in summer and/or spring, the Fall Line Hills may experience a net water deficit between the months of May and October in a typical year. This is generally through agricultural use of the available surface water (Hodler and Schretter 1986:42). Water levels in the Savannah River are now regulated by the Clarks Hill Dam.

### 2.4 Floral and Faunal Habitats

The Savannah River Valley today (excluding farmland) includes six primary forested habitats. These include over four million acres of loblolly-shortleaf pine, more than one million acres of oak-pine, 545,000+ acres of longleaf-slash pine, 533,000+ acres of oak-hickory, 516,000+ acres of oak-gum-cypress, and about 11,000 acres of live-oak forest or coastal marsh. Much of the region is managed plantation pine or other timber products and, therefore, subclimax forest. Modern forest types do not directly equate with these habitats, especially in the Pre-Contact period. Plummer (1975) provides more substantial insight into the forested habitat of the eighteenth century in the region, while Bartram (1791) describes a sample of plant species and habitats of the lower Savannah River Valley from his 1773 travels. These sources suggest a continuity of oak-gum-cypress species and habitats on the floodplains and in the marshes between the 1700s and today, but a transition of upland areas from oak-hickory, and oak-pine, to a great deal more loblolly-shortleaf pine dominated managed habitat.

Notably, a large segment of the middle portion of the corridor is currently used by private residential developments/equine-focused communities for horse-jumping, dressage, and trail riding (see Figure 2.2). The grass is kept short for these activities, and multiple ponds have been added for the jumps. Horses are a common sight in these areas.



### 3.0 Cultural Overview

#### 3.1 The Pre-Contact Era

In South Carolina, the Pre-Contact era is divided into four stages (after Willey and Phillips 1958). These include the Lithic, Archaic, Woodland, and Mississippian. Specific technologies and strategies for procuring resources define each of these stages, with approximate temporal limits also in place. Within each stage, with the exception of the Lithic stage, there are temporal periods that are defined on technological bases as well. A brief description of each stage follows, including discussions of the temporal periods within each stage. Readers are directed to Goodyear and Hanson (1989) for more detailed discussions of particular aspects of these stages and periods in South Carolina.

##### *3.1.1 The Lithic Stage*

**Pre-Clovis Period (13,000+ BP).** The beginning of the human occupation of North America is unclear. For most of the twentieth century, archaeologists believed that humans arrived on the continent near the end of the last Pleistocene glaciation, termed the Wisconsinan in North America, a few centuries prior to 12,000 BP. The distinctive fluted projectile points and blade tool technology of the Paleoindians (described below) occurs throughout North America by this time.

During the last few decades of the twentieth century, researchers began to encounter artifacts and deposits that predate the Paleoindian period at a number of sites in North and South America. To date, these sites are few in number. The most notable are Meadowcroft Rock Shelter in Pennsylvania (Adovasio et al. 1990; Carlisle and Adovasio 1982), Monte Verde in Chile (Dillehay 1989, 1997; Meltzer et al. 1997), Cactus Hill in Virginia (McAvoy and McAvoy 1997), and most recently, the Topper/Big Pine Tree site in Allendale County, South Carolina (Goodyear 1999). All of these sites contain artifacts in stratigraphic locales below Paleoindian deposits. Radiocarbon dates indicate occupations at the Meadowcroft and Topper/Big Pine Tree sites that are 10,000 to 20,000 years earlier than the earliest Paleoindian occupations. Cactus Hill produced evidence of a blade technology that predates Paleoindian sites by 2,000 to 3,000 years.

Monte Verde produced radiocarbon dates comparable to those at North and South American Paleoindian sites, but reflects a very different lithic technology than that evidenced at Paleoindian sites. Similarly, the lithic artifacts associated with the other pre-Paleoindian deposits discovered to date do not display the blade technology so evident during the succeeding period. Unfortunately, the numbers of artifacts recovered from these sites are too small at present to determine if they reflect a single technology or multiple approaches to lithic tool manufacture. Additional research at these and other sites will be necessary to determine how they relate to the better-known sites of the succeeding Paleoindian period, and how these early sites reflect the peopling of North America and the New World.

**Paleoindian Period (13,000–10,000 BP).** The Paleoindian period, the earliest securely dated and documented period of human occupation in the New World, corresponds with the terminal Pleistocene, when the climate was generally much colder than today, and when sea levels were

over 60 m below present levels. Another notable feature of the terminal Pleistocene was the presence of large mammalian species (i.e., megafauna).

The pattern of human adaptation for this period has been reconstructed from data from other areas of the country and from distributional data on the diagnostic fluted projectile points (e.g., Clovis, Hardaway, Dalton) within the Southeast. Very few Paleoindian sites have been excavated in the Southeast, and only relatively recently have South Carolina sites received attention (Goodyear et al. 1989). However, the data from surface finds of Paleoindian points seem to indicate that cultures of this period were focused along major river drainages, especially in terrace locations (Anderson and Logan 1981; Goodyear 1979; Michie 1977). Similarly, Anderson et al. (1990:39-40) suggest an emphasis on floodplain locales in the Oconee River valley of Georgia, with a shift to an increased use of upland areas through time. Work in the Oconee Valley by O'Steen et al. (1986) also demonstrated the presence of specific Paleoindian site types associated with particular settings within the valley.

If the pattern from other areas of the country holds true in South Carolina, then the adaptation was one of broad-range, high-mobility hunting and gathering with a possible focus on megafauna exploitation (Gardner 1974). Evidence to suggest a more generalized approach, with small game and plant foods providing the bulk of Paleoindian subsistence, also has been collected for the eastern United States (Meltzer 1988; Meltzer and Smith 1986); the limited association of megafaunal remains with cultural artifacts in the Southeast may support this contention.

The material culture of the Paleoindian period is dominated by fluted or semi-fluted projectile points, most commonly produced on high-quality cryptocrystalline material. Although fluted points have been found in surface contexts across the South Carolina Piedmont, the Paleoindian (i.e., Clovis) period is relatively poorly represented (Goodyear et al. 1989).

Artifacts and sites of a Transitional period (12,000–9,500 BP) are much more common in the region. It should be noted that there is disagreement regarding the placement of the Hardaway and Palmer phases, with the Palmer phase sometimes placed in the Paleoindian period (e.g., Claggett and Cable 1982; Purrington 1983; Ward 1983). The Hardaway complex includes semi-fluted/side-notched projectile points and a wide variety of formal scrapers (Coe 1964). It is best known from the Hardaway (type) site in Stanly County, North Carolina (Coe 1964), but other excavations have also yielded Hardaway and Hardaway-Dalton material (e.g., Claggett and Cable 1982). The following Palmer phase retains many of the same formal tool types, while the Palmer projectile point is a side-notched variety generally lacking basal thinning or fluting (Coe 1964).

In terms of settlement, there appears to have been a dramatic increase in site frequency from Clovis to Hardaway. Hardaway and Palmer sites are present in a wide variety of environmental zones. If O'Steen's (1983) model of Transitional period settlement in the Georgia Piedmont can be applied to the South Carolina Piedmont and Sandhills, the major sites would be expected near large rivers, particularly around areas of shoals or narrows.

Only a few Paleoindian projectile points have been reported from the area, particularly the earlier fluted types. The majority of these specimens has been recovered from surface or plow zone

contexts. Charles's (1986) survey of lanceolate Paleoindian points in South Carolina suggests that the majority of the specimens recovered to date were manufactured from high-quality Coastal Plain cherts that are exposed along the Savannah River in Allendale County and adjacent portions of Georgia.

### *3.1.2 The Archaic Stage*

The Archaic stage represents the adaptation of Southeastern Native Americans to Holocene environments. By 10,000 BP, the forests had changed from sub-boreal types common during the Paleoindian period to more modern types. The Archaic stage is divided into three temporal periods: Early, Middle, and Late. Distinctive projectile point types serve as markers for each of these periods. Hunting and gathering was the predominant subsistence mode throughout the Archaic periods, although incipient use of cultigens probably occurred by the Late Archaic period. Also, the terminal Archaic witnessed the introduction of a new technology, namely, the manufacture and use of pottery.

**Early Archaic Period (10,000–8,000 BP).** The Early Archaic corresponds to the initial adaptation of native groups to Holocene conditions. The environment in central South Carolina during this period was still colder and moister than at present, and an oak-hickory forest was establishing itself on the Coastal Plain (Watts 1970, 1980; Whitehead 1965, 1973). The megafauna of the Pleistocene had disappeared, and more typical woodland flora and fauna were established. Early Archaic finds in the region are typically side- or corner-notched projectile points (e.g., Taylor, Palmer, and Kirk), which have been determined to be Early Archaic through excavation of sites in other areas of the Southeast (Claggett and Cable 1982; Coe 1964).

Early Archaic sites generally are small, suggesting a high degree of mobility. Diagnostic projectile points have been recovered from all portions of the lower Piedmont and Upper Coastal Plain, suggesting a shift from the riverine emphasis of the earlier Paleoindian period (Goodyear et al. 1989:38; Wetmore et al. 1986:18). This is particularly true for the earliest Palmer points. Interestingly, these types display a technological continuation of the earlier Paleoindian lithic tradition not found in the later corner-notched or bifurcated types (Goodyear et al. 1989:39; Oliver 1985:200).

Anderson and Hanson (1988) propose a model for Early Archaic subsistence/settlement on the South Atlantic Slope. This model suggests the implementation of high residential mobility throughout most of a season, with aggregation in the winter when resources are less widely distributed within the region. Further, population aggregates are associated with specific drainages. Annual population movements include use of the Piedmont and upper Coastal Plain within each drainage; the Sandhills presumably were visited in the fall, probably due to the presence of dense oak masts and concentrations of mast-consuming ungulates (i.e., deer; also see Sassaman et al. 1990:50-52; Sassaman et al. 2002). Anderson and Hanson (1988:271) suggest the presence of “macrobands” associated with the larger drainages that cross the region. Interaction between these larger aggregates permitted the flow of extra-local raw materials, information, and mates between the groups occupying each drainage.

In contrast, O'Steen's (1983) model of Early Archaic settlement suggests fairly restricted occupation during this period in the Oconee Valley of the Georgia Piedmont. Recurring

occupation of base camps within the valley, at locales that provided access to the greatest density and diversity of resources, was suggested with lithic exchange networks that extended across territorial boundaries of particular groups.

**Middle Archaic Period (8,000–4,000 BP).** The trends initiated in the Early Archaic (i.e., increased population and adaptation to local environments) continued through the Middle Archaic period. Climatically, the study area was still warming, and an oak-hickory forest dominated the region until circa 2000 BC, when pines became more prevalent (Watts 1970, 1980). Stemmed projectile points (e.g., Stanly, Morrow Mountain, Guilford Lanceolate) and ground stone artifacts characterize this period.

On the nearby Piedmont, site densities increased through the Middle Archaic period, suggesting more intensive implementation of foraging strategies; no specific locales appear to be favored for occupation (Blanton and Sassaman 1989:59-60). On the Coastal Plain, Middle Archaic sites occur with less frequency but show evidence of more intensive habitation and large-scale tool production. This suggests increased “patchiness” in resources on the Coastal Plain, compared to earlier periods or the contemporary Piedmont (Sassaman et al. 1990:10). Middle Archaic sites in the Sandhills region appear to relate more to the Coastal Plain pattern. Anderson’s (1979) excavations at 38LX5 and 38LX64 on the Congaree River suggest the use of the floodplain as long-term residential locales similar to logistical base camps and the use of nearby upland settings as more specialized resource extraction locales. Middle Archaic sites, usually consisting of a few flakes and points, are scattered throughout the Savannah River Site (SRS), located to the south of the project corridor. These distributions parallel site occurrences on the Piedmont, suggesting that Middle Archaic groups were highly mobile and exploited a wide variety of resources from all possible settings in the region. Excavations at Middle Archaic sites in the Sandhills along Lynches River in Chesterfield County to the northeast by Gunn and Wilson (1993) and McMakin et al. (2000) suggest adaptations similar to those noted by Sassaman et al. (1990).

**Late Archaic Period (4,000–2,500 BP).** The Late Archaic period apparently relates to a time of population expansion and increased local adaptations (Caldwell 1958). It also is during this time that the first pottery appears on the South Carolina coast and in the Fall Line region. This pottery is the sand-tempered or untempered Thom’s Creek series and the fiber-tempered Stallings series; both are decorated by punctation, incising, finger pinching, and, for Thom’s Creek, possibly simple stamping and dentate stamping. Large, stemmed bifaces (e.g., Savannah River) are the most common lithic artifacts in the earlier pre-ceramic Late Archaic assemblages. Smaller, stemmed points appear in association with the ceramic wares, apparently representing a transition between the ceramic Late Archaic and subsequent Early Woodland cultural manifestations of the region.

Late Archaic sites throughout the southeastern Atlantic seaboard suggest that intensive exploitation of specific aquatic resources was common throughout the period. Large sites, presumably representing long periods of occupation by a large population aggregate, occur along the major drainages and the coastal estuaries. An emphasis on anadromous fishes (at the Fall Line and on the Piedmont) and shellfish (along the coast) has been suggested by several researchers (Claggett and Cable 1982:40; Taylor and Smith 1978) to explain the presence of

these large sites. However, the distinctive large, stemmed projectile points generally associated with Late Archaic occupations have been recovered from sites in almost all environmental settings from the mountains to the coast throughout South Carolina (Wetmore et al. 1986:21). Thus, Late Archaic sites can be expected throughout the Inner Coastal Plain of South Carolina.

Sassaman et al. (1990:312-314) propose a model for Late Archaic settlement on the SRS that includes large population aggregations in the river valley during the spring and summer, with a dispersal of smaller family groups into tributary drainages during the fall and winter of each year. This would result in the development of large, dense sites with very diverse artifact assemblages in the river floodplain, and smaller, less diverse sites along smaller drainages and in the inter-riverine areas. Anderson's (1979:236-237) excavations at four sites in the Congaree Valley in Lexington County tend to support such a model, with two sites located in upland settings adjacent to the floodplain containing remains suggestive of limited-activity animal processing and two sites on the floodplain containing evidence of intensive occupation suggestive of long-term residence and a wide range of activities.

### *3.1.3 The Woodland Stage*

The Woodland stage is marked by the introduction of pottery and the use of smaller triangular projectile points, assumed to indicate the presence of the bow and arrow. The change in material culture represents a change in subsistence strategies and approaches to hunting and gathering. The Woodland is divided into three temporal types (Early, Middle, and Late), marked by distinctive pottery types.

**Early Woodland Period (2,500–1,800 BP).** The first Woodland manifestations in the region are characterized by a significant increase in stamp-decorated pottery. Following Espenshade and Brockington (1989), definitive markers of the Early Woodland are considered to be Deptford Check Stamped (linear and bold), Deptford Simple Stamped (including possible Refuge Simple Stamped), and coarse sand-tempered, fabric-impressed pottery. In the Early Woodland, the region apparently represented an area of interaction between widespread ceramic traditions, with the paddle-stamped tradition dominant to the south and the fabric-impressed and cord-marked tradition dominant to the north and west (Blanton et al. 1986; Caldwell 1958; Espenshade 1986; Espenshade and Brockington 1989).

The subsistence and settlement pattern of the Early Woodland period suggests population expansion and the movement of groups into areas used less intensively in earlier periods. Hanson (1982) suggests that this dispersal reflects a collapse of a previously stable resource base (e.g., drowned estuaries on the coast [Trinkley 1989:78]) and the attempt of Early Woodland populations to replace a focused subsistence strategy with one more diffuse (after Cleland 1976). Anderson and Joseph (1988:218) note a similar diffusion of population and reduced regional interaction during the Early Woodland period of the Middle Savannah River Valley of South Carolina as well. Similar dispersals are noted for the Savannah River Site, with a shift from the floodplains to an occupation of the uplands along the many tributaries of the Savannah River (Sassaman et al. 1990:315). Anderson (1979:237) suggests a general shift away from the Congaree floodplain as well. Presumably, single-family residences were established in upland locales that were inhabited throughout the year. Additional resources were procured through

exchange with neighbors or collected from specialized sites scattered throughout the immediate area.

Thus, Early Woodland sites most common in the region generally consist of small ceramic and lithic scatters in a variety of environmental zones. Some sites will represent residential locations of single-family units, while others will represent resource-extraction loci. Lower artifact frequencies and diversity, and also reduced site size, could be expected at the resource-extraction sites.

**Middle and Late Woodland Periods (1,800–1,000 BP).** The typological manifestations of the Middle and Late Woodland periods in the region are somewhat unclear. The check-stamped tradition of the Early Woodland Deptford series continues through most of the Middle Woodland period. Cord-marked and fabric-impressed ceramics continue to be produced through the Middle and Late Woodland periods, as do simple-stamped wares. There is no single decorative mode that can be associated with these periods, and research in the project region has only begun to sort out the confusion (Anderson et al. 1982; Blanton et al. 1986; Trinkley 1983).

Middle and Late Woodland settlement patterns appear to continue the diffused distributions noted for the Early Woodland (Trinkley 1989:83-84). Interior Coastal Plain sites of the periods tend to occur adjacent to the large, swampy floodplains of the many rivers crossing the Coastal Plain, with numerous small scatters of Middle/Late Woodland artifacts occurring on the inter-riverine uplands. McMakin et al. (2000) recovered few Late Woodland artifacts from sites excavated on the upper Lynches River; however, two sites contained burials that produced radiocarbon dates from the Late Woodland period (circa 1,200–1,100 BP).

#### *3.1.4 The Mississippian Stage (1,000–450 BP)*

Mississippian societies represent the most complex prehistoric cultural development in the southern United States. The diagnostic complicated stamped ceramics and small triangular projectile points of this period mark the transition of groups in the region to a complex system of social organization that lasted until European contact. In most areas of the Southeast, the Mississippian period is characterized by an emphasis on agriculture and by the development of complex public works and ceremonial centers occupied by a highly stratified society. The Native American groups encountered in the region by European explorers and traders from the 1540s through the mid-1700s were Mississippian societies. Contact with the Europeans introduced new technologies and diseases that greatly altered the social and political organizations that were present in the region in the sixteenth century.

Mississippian groups apparently were aligned along major drainages (i.e., those with extensive floodplains) and the coastal strand (i.e., near estuarine resources) (Anderson 1989:114). A wide range of site types has been identified for Piedmont Mississippian occupations throughout South Carolina, North Carolina, and Georgia. Larger villages tend to be associated with specific mound sites. Smaller habitation sites are scattered along the surrounding drainages, to the extent that single-family compounds may be present on secondary drainages with adequate floodplains to support the agricultural production of foodstuffs (Ferguson and Green 1984; Poplin 1990). Ferguson and Green (1984) also note that Mississippian centers generally display a symmetric distribution above and below the Fall Line, with few large sites in the immediate location of the

distinctive rapids of the local rivers. Thus, major Mississippian sites tend to be located along the major drainages of South Carolina that possess extensive floodplains; however, they occur either on the lower Piedmont (above the Fall Line) or on the upper Coastal Plain (below the Fall Line) rather than at the transition between these two major physiographic regions of the state.

Much of the Savannah River Valley appears to have been abandoned during the later Pre-Contact and Contact periods. Anderson (1989:119) suggests that an extensive buffer existed between the province associated with Cofitachequi—the regional “center” of Mississippian settlement throughout central South Carolina (DePratter 1989) on the Wateree River near Camden—and the neighboring province of Ocute, presumably centered on the Oconee River in Georgia. Extensive research has not been conducted in the drainages between the Savannah and Wateree, but large Mississippian settlements have not been positively identified in these drainages to date.

Besides the large central-mound villages, many small scatters of Mississippian artifacts are found in diverse environmental settings throughout the surrounding region. These sites probably represent resource-extraction loci, since an amalgam of agricultural produce and hunted and gathered remains provided subsistence for Mississippian groups throughout the Southeast (Smith 1975). As an example, Goodyear (1976:11-12) noted extensive Mississippian sites along the Congaree River below Columbia. These sites are interpreted as base camps located near prime agricultural lands, from which inter-riverine locales were visited to collect resources not available on the floodplain.

### 3.2 Contact Era

This is the time of initial contact between the indigenous populations and Europeans arriving in North America. Other than a few direct contacts, most Native American groups “encountered” Europeans through trade goods and diseases. However, a number of groups established strong relationships with the European colonists, monopolizing trade with the coastal settlements and sometimes capturing slaves for the new settlers. Although a few Spanish explorers landed on the coast of South Carolina during the first half of the sixteenth century, the first incursion into the interior occurred in 1540 when the De Soto expedition passed through the region. The French and Spanish both established settlements on Parris Island in Port Royal Sound in the 1550s and 1560s; the Spanish settlement of Santa Elena would remain in place until the late 1580s. During this time, a few Spanish explorers and traders traveled into the interior of the Carolinas. After the abandonment of Santa Elena in 1588 until the establishment of Charles Towne in 1670, no known European visits to the interior of South Carolina occurred.

The middle Savannah River Valley appears to have been unoccupied during the sixteenth century. The area was reported to be deserted by the 1540 Hernando de Soto expedition and has been termed the “desert of Ocute” (Hudson et al. 1984). Anderson (1990) links this abandonment to cycling in chiefdoms and other episodes of political upheaval. A number of groups are identified in the region after the establishment of Charles Towne in 1670, including the Westo during the late seventeenth century and the Shawnee, Apalachee, Apalachicola, Chickasaw, Yamacraw, and Yuchi in subsequent decades (DePratter 1988).

In 1680, the Savannas migrated into the region and drove out the Westo, whose numbers had been decimated by a war with other local tribes. These mysterious Savannas were probably a group of isolated Chickasaw that moved from the Georgia side of the Savannah River to Beech Island on the South Carolina side of the river. They made trading connections with the Goose Creek men near Charles Towne, and were given a town on the bluff of the big river initially called the Westbou, but then the Savannah. As friends of the Carolinians, the Savanna received special trading rights and enjoyed a brisk trade of deerskins and Indian slaves sold to Charles Towne merchants (Crane 1956).

Very little is known about Savannah Town before the year 1690. The Joel Gascoyne Map, dated 1685, shows a path running from Charles Towne via Goose Creek to the fork of the Edisto River and then west to "Savanna Town and Fort." Gascoyne's map substantiates a settlement at that time, but the exact date that of permanent settlements of colonial traders is not known. It is likely that traders lived in the area very early on with protection from their Savanna allies.

One of the better documented and longest lasting occupations was that of a small, possibly renegade band of the Chickasaw invited by the Carolina leadership to settle near Fort Moore. Fort Moore was constructed in 1716 by the British near the abandoned site of Savannah Town (Ivers 1970). Note that this settlement is now recorded as archaeological Sites 38AK0004 and 38AK0005. Under the leadership of a chief known as the Squirrel King, this small band of Chickasaw, perhaps 30 or 40 in number, arrived in the project area circa 1723 (Milling 1969:188). Their settlement, located across the Savannah River from New Windsor township, originally consisted of 8,710 hectares. The Lower Chickasaw, as the group came to be known, became faithful allies of the British.

While their loyal military service was praised, the Lower Chickasaw had a series of small altercations with white settlers on adjacent lands. To help prevent encroachment by the immigrating Carolinians, the Chickasaw settlement was surveyed and officially deeded to the tribe in 1739 (Milling 1969). This did little to relieve friction between the Chickasaw and their neighbors. Accusations of theft and threats against white settlers plagued local officials, who hastily reprimanded alleged Chickasaw perpetrators. Also feeling pressure from neighboring Indian groups such as the Cherokee, the Lower Chickasaw traded some of their holdings in the New Windsor township for a tract located on the Georgia side of the Savannah River (Milling 1969).

When asked why they preferred the new tract to their older holdings around Horse Creek, the Old Doctor, apparently a shaman among the Lower Chickasaw, replied that the new location was less vulnerable to attack by Indian neighbors to the north (Milling 1969). According to some sources (Milling 1969), the Lower Chickasaw never officially ceded their lands on the east bank of the Savannah River and lived for a while on both sides of the river; however, the entire settlement was located on the Georgia side by 1758 (Cashin 1978).

According to Cashin (1986), the Chickasaw were awarded lands on the Georgia side of the river in exchange for agreeing to help establish the city of Augusta. Roger Lacy, appointed by Oglethorpe to enforce Indian trade regulations and to establish Augusta, had surveyors "run out" a town for the Lower Chickasaw (Cashin 1986:31). This town, called New Savannah, was



located approximately 16 kilometers south of Augusta on a bend of the Savannah River. Records of grievances made by the Lower Chickasaw concerning, among other things, squatters from the north and horse thieves, indicate that a considerable number of tribal members were still living on the South Carolina side of the river as late as 1766 (Milling 1969).

The Chickasaw, like most of the Native American groups in the Southeast, sided with the British during the American Revolution. In 1783, the Assembly of South Carolina passed an ordinance authorizing the confiscation of loyalist estates, including the land holdings of the Chickasaw (Milling 1969). Georgia adopted a similar policy toward loyalists, completely removing the Chickasaw from the area. The Catawba, who sided with the patriots during the Revolution, assumed the position of frontier guardsmen along the Savannah River. In the years that followed the Revolution, many former Tories were able to recover confiscated properties; however, the Lower Chickasaw were not as fortunate. On the technicality that the Indians held these properties as individuals and not as the Chickasaw Nation, a petition to recover their lands was denied by the courts (Milling 1969).

### 3.3 Post-Contact Overview

The first known Europeans to come to South Carolina were the Spanish captains Francisco Gordillo and Pedro de Quexos and their sailors in the summer of 1521. Thereafter, the southern Carolina coast was of great interest to both the Spanish and the French. The Spaniard Ayllon attempted to establish the settlement of San Miguel de Gualdape in 1526, but was unsuccessful. The location of this settlement is not known, although it is thought to have been in the vicinity of Winyah Bay (Quattlebaum 1956). In 1526, the French under Jean Ribault attempted to establish a settlement on the South Carolina coast. This settlement, in the Port Royal Sound area, was called Charlesfort and also was unsuccessful. Hernando de Soto and his expedition explored the interior of the southeast in 1540-1542 and visited the Province of Cofitachique. Scholars disagree on the exact location of this province; generally, it is placed in western South Carolina. Indian groups of the area were probably contacted by the Juan Pardo expedition during 1566 and 1567. A successful Spanish settlement was finally established on Parris Island in Port Royal Sound in 1566. This settlement, called Santa Elena, was abandoned by the Spanish in 1587 (South 1979).

The interior of South Carolina remained largely unexplored by Europeans until the establishment of Charles Towne (Charleston) in 1670. This English settlement grew slowly in the beginning, but served as a base for repeated explorations into the interior of the region. Shortly before 1700, English trappers and traders began moving into western South Carolina. Diseases and warfare had largely decimated Lowcountry native groups, and the dominant tribe in western South Carolina was the Iroquois-speaking Cherokee. The English and the Cherokee soon became major trade partners. Coarse woolen cloth, hardware, glass beads, hatchets, hoes, and knives were exchanged for furs and skins (Petty 1943:29).

Deer hides became the most important product exported to England in the first quarter of the eighteenth century. Trade with the Cherokee was so brisk that it was taken over by the provisional government in 1716. As many as 230,000 deer skins were received in Charleston in 1732. By 1750 exports of deer skins were worth \$1 million (Klosky 1971:6). In 1751, trade legislations regulated the employment of traders, rum distribution, and traders' bond limits. In 1752 the Cherokee Nation was mapped into 13 hunting ranges with one trader assigned to each

range. Contemporary reports include one trader's estimate that he would buy 14,000 deer skins (Van Clayton 1988:4).

For decades, traders financed by Charles Towne's merchants had plundered, killed, and enslaved the Indians of the backcountry. In 1715, the Yamasee and their confederates – the Creeks, Choctaws, and Catawbas – retaliated against the European settlers. On Good Friday, 15 April 1715, they fell on frontier settlements 129 kilometers southwest of Charles Towne, murdering about 100 persons, including the wealthy Indian trader and legislator Thomas Nairne, who was slowly burned to death. Indian raiding parties struck with terrifying suddenness along the Combahee and Edisto Rivers, and then along the Stono just below Charles Towne. Refugees streamed into the city and governor called out the South Carolina militia and led them on a counterattack. "The Carolinians sought help from the Proprietors, but they refused to spend any more money on Carolina and indicated that the colonists should rely on their own resources. The crisis ended only when the Cherokees at the western end of the colony agreed to aid the Carolinians by attacking the Creeks in early 1716, thus relieving the pressure on Charles Towne and helping to end one of the bloodiest and most costly of the Indian wars in colonial America" (Fraser 1989:32-33).

Trade came to a standstill during the war and the colony's indebtedness to English creditors put Charles Towne's economy on shaky ground. In addition, crops were neglected for several years, buildings and fences were burned, and livestock slaughtered or carried off. At least 400 Carolinians, mostly farmers, were murdered and many others fled the colony. The conflict impressed upon the colonists the strategic value of settling the backcountry and constructing frontier fortifications. The Carolinians immediately designed plans for a fort in the backcountry for their allies, the Cherokees, and the expedition to build it soon departed. Fort Moore was constructed as a strategic buffer between Charles Towne and hostile Indian groups along and west of the Savannah River (Weir 1983:84-85).

Fort Moore was built at Savannah Town on the high bluff that had been recently occupied by the Savanna Tribe. The construction of Fort Moore was handled by Captain Gerald Monger, who was the first commander of the post. It was named in honor of former Governor James Moore, a prominent slave trader. The fort possessed a commanding view of the trading trails that approached from both across the Savannah River and upriver. For over 50 years the wooden fort guarded the western edge of the Carolina colony, providing protection for traders and settlers moving into the upcountry. It served as both garrison and trading post for the friendly inland tribes (Crane 1956).

Fort Moore was often in a state of disrepair, the walls rotting, the footing devoured by termites. Even though the fort was small, it was important to the upcountry defense and lucrative deerskin trade, so constant effort and expense went into maintenance. By 1720 the garrison was manned by 20 regulars and the path from Fort Moore and Savannah Town was continually patrolled by frontier soldiers called Rangers. About 1747, Fort Moore was rebuilt with walls over nine feet high and a walkway platform around the inside. Though the barracks could hold a hundred soldiers, there was rarely such a large contingent there, the usual number ranging from fifteen to thirty. The settlement of Augusta on the west side of the Savannah River marked the decline of

Fort Moore as a military and trading factor and in 1763, the fort was abandoned. George Johnston (1763) described Fort Moore before it was abandoned as:

. . . on a beautiful and commanding Situation, is another Fort, named Fortmore, about one Hundred and fifty Miles West from Charles-Town; it is built of six-inch Plank nailed to Posts of light Wood, with four Towers or Bastions on the Angles, on which are small Cannon mounted; on the Inside is a Banquet, with loop-holes in the Courtines for small-arms; it has neither Ditch nor Glacis, but very good Barracks for one Hundred Men.

Mills' (1825) map of Edgefield District shows Fort Moore, though it was probably little more than ruins after several decades of abandonment (Figure 3.1).

Prior to and during the Revolution, western South Carolina was a lawless border land (Klosky 1971:13). It was occupied by European American squatters who had gone there to escape the laws of the Colony (the closest law court was in Charleston). Concerned citizens banded together and formed a vigilante group called the Regulators. Another group was formed to support the existing colonial authorities and called themselves the Scovils. These two groups would eventually become known as Whigs (Regulators) and Tories (Scovils).

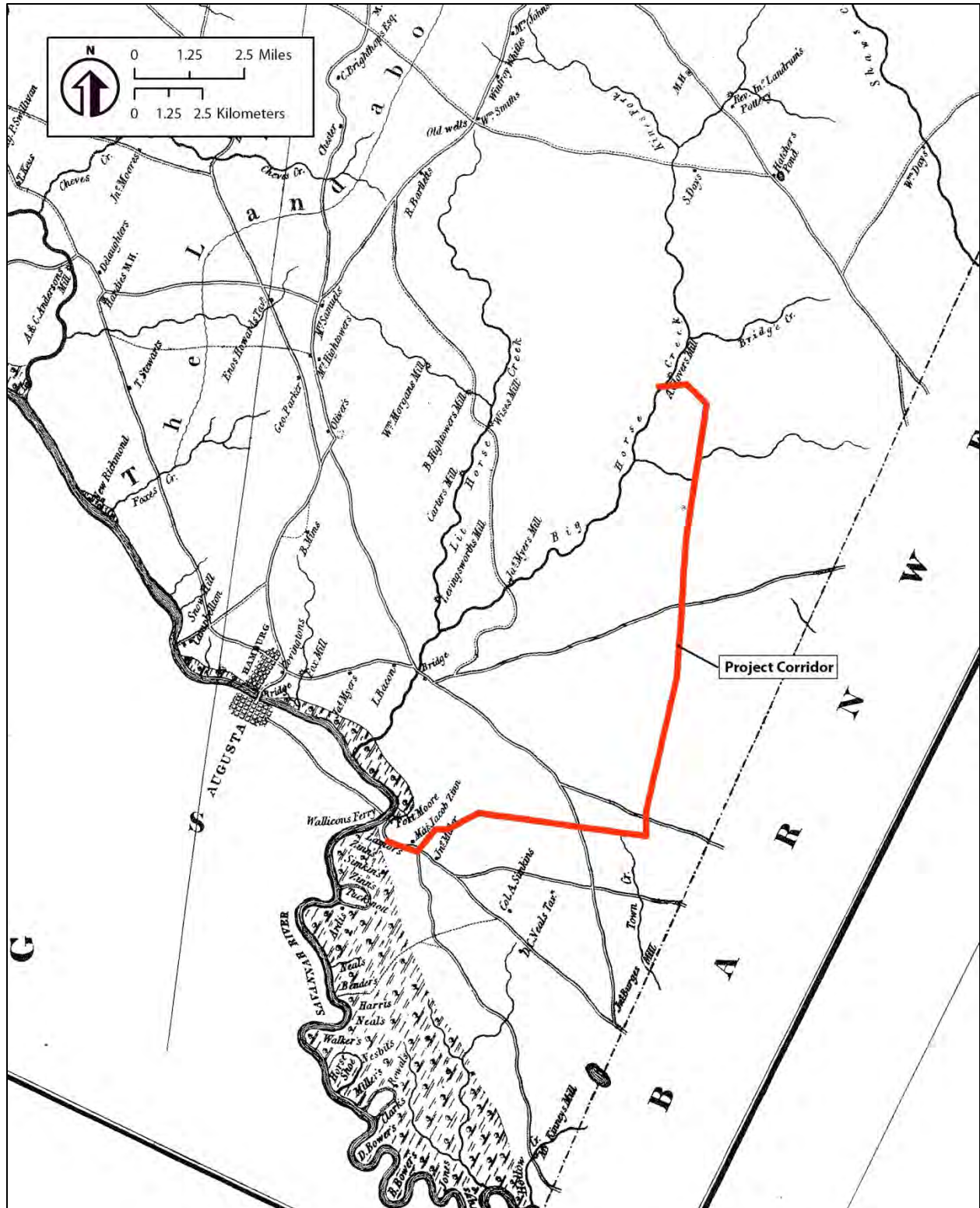


Figure 3.1 1825 Mills Atlas showing the location of the 17.6-mile Project Corridor in relation to Augusta, Fort Moore, and historic roads.

European settlement of the Savannah River drainage system began with the establishment of Augusta and New Windsor in the 1730s (Brooks 1981:25). Trading posts established along the Savannah River became important centers of fur trade between the English, the Cherokee, and the Creek Indians.

Ties between the colonists and the Cherokees began to disintegrate during the middle 1700s (Klosky 1971:8). The global conflicts between England and France spread to the New World, as evinced by the French and Indian War of 1756-58. The Creek and Cherokee became involved in this brutal conflict as allies of the English and French. Numerous battles had decimated the ranks of fighting men from both tribes, weakening their military strengths, and, therefore, their usefulness to England and France. Tensions between the Cherokee and the English escalated to war in 1759 with the Cherokee War. Bands of Cherokee raided settlements and burned homesteads along the frontier (Van Clayton 1988:4). British troops, along with the local militia repeatedly defeated the Indians in battle, and eventually burned all Cherokee towns in South Carolina (Van Clayton 1988:7).

South Carolina was held by Patriot forces from November 1775 until the spring of 1780 (Holschlag and Rodeffer 1977:21). The British attacked and captured Charleston in May 1780, and a month later General Andrew Williamson surrendered his Patriot forces at the town of Ninety-Six. The British garrisoned the town with 650 Loyalists as part of a string of fortifications at Augusta, Camden, and Georgetown. Patriot General Nathanael Greene laid siege to the town in May 1781 but could not hold the siege. The town was abandoned by the British soon after because it was difficult to maintain and re-supply (Holschlag and Rodeffer 1977:23).

The Revolutionary War further stifled settlement in the area. Rebel and Tory groups fought back and forth over western South Carolina. Two skirmishes occurred in Aiken County at Beech Island (near the project corridor) and Galphin's Fort; both were related to the American capture of Augusta from the British (Brooks 1981:28). Another skirmish occurred in Barnwell County at Wiggins Hill.

After the Revolution, settlement and farming began in earnest. The land was cleared and cultivated, and corn and wheat were the major cash crops until Eli Whitney's cotton gin made the slave production of cotton economically possible. Lack of good roads, however, made transportation of goods to market difficult, and the Savannah River became the major transportation route between the backcountry and the coast (Brooks 1981).

To stimulate commerce, Charleston businessmen, including William Aiken, procured a charter in 1827 to build a railroad from Charleston to Hamburg (Brooks 1981:36). The 136-mile-long track was built primarily by slaves and free blacks (Strother 2008). When completed in 1833, it was the longest railway in the world at that time. The South Carolina Railroad carried over 100,000 bales of cotton a year to Charleston by 1846 (Brooks 1981:36). The railroad encouraged settlement of the interior of the state, and substantial towns, including the town of Aiken, were constructed at almost every train station from Hamburg to Charleston. Beech Island, near the project tract, also vied for a railroad stop, but was bypassed by a stop at Williams crossroad (Vandervelde 1999:70).

At the same time that the South Carolina railroad was being constructed and began transporting cotton to Charleston, several back-country entrepreneurs began attempting to set up their own milling operations. The Panic of 1837 had impressed on many South Carolinians the importance of a diversified economy that was not entirely reliant on agriculture (Vandervelde 1999:76). However, many early attempts to establish manufacturing in the Aiken County area were disastrous failures, mostly due to poor management, but also to events like enslaved workers setting fires. A former jeweler named William Gregg was the first to establish a successful mill after proving himself an adept manager and partner at other mill operations.

Gregg chose to set up his own textile mill on Horse Creek, about a mile south of the South Carolina Railroad, and near the north end of the existing project corridor under study. The company, known as the Graniteville Manufacturing Company, purchased the land for the operation in 1846, and Gregg busied himself having men dig a canal, establish a sawmill for lumber, and build dams for the water supply (Vandervelde 1999). Gregg also designed and built an entire mill village, simultaneously, including a school, a hotel, two churches, several boarding houses (for single workers), six stores, and 90 cottages (for families) (Swint 1935). The cottages have been described as “real houses, not arranged in serried rows like the average mill village, but properly spaced about the landscape” (Swint 1935:no page numbers). The mill itself, also designed by Gregg, was two stories high, partially built from locally quarried granite, with elevated machinery, two turbines, and pipe systems to provide heat and fire protection (Vandervelde 1999).

When this modern factory went into operation in 1849, it was the largest in the state (Vandervelde 1999:80). By the 1850 census, Gregg has attracted 325 workers to his mill, and 900 white citizens to the new town of Graniteville. Most mill workers were girls and young women, and Gregg insisted that all workers be white. Gregg’s company made money from more than the products it produced; workers paid rent for company houses; items were purchased at the company stores; and all children ages 6 to 12 were required to attend the mill school, for a fee (Vandervelde 1999:82). The Greggs kept houses in the Edgefield District and in Charleston. Gregg was not above hard work himself, however. A flood in 1867 broke the Graniteville mill dam, and Gregg caught pneumonia trying to help his workers fix the leak; he died soon after (Swint 1935; Vandervelde 1999:206).

During the Civil War, a large portion of the textiles produced by the Graniteville mill went to the Confederacy. This supply was reimbursed in 1861 and 1862, but “commandeered as a tax” (Swint 1935: no page numbers) in the last years of the war. Little activity occurred in the South Carolina backcountry until the last year of the war. After the capture of Savannah, General Sherman’s army moved north and captured and burned the towns of Blackville and Williston, as well as destroying a substantial amount of railroad track in between. Sherman sent General Kirkpatrick and his cavalry to raid Aiken; he hoped to confuse the Confederates into believing Augusta, instead of Columbia, was the next object of his attentions. General Wheeler and his cavalry successfully opposed the Federal raid into Aiken on 11 February 1865. After the raid, both Wheeler and Kirkpatrick moved back toward General Sherman’s route to Columbia. General Lee surrendered in Appomattox, Virginia on 9 April 1865 and General Johnston surrendered in Bentonville, North Carolina on 26 April (Barrett 1987:98).

The end of the Civil War brought vast changes to South Carolina, and particularly to the upcountry. New ways of doing business came to the fore, which placed a premium on the small, but growing, inland towns and their merchants. Agriculture also was profoundly changed with the sudden end of slavery. Reconstruction began a period of experimentation in systems of organizing labor, particularly on the area's farms. Prunty (1955) attributes the development and growth of the tenant system to extensive changes in sources of labor and availability of capital. The reorganization that occurred was based primarily on changes in the relationship between management and labor, and resulted in the broad dispersal of smaller, individual farmsteads within the former boundaries of plantations. Spatial differences between antebellum and postbellum plantation settlement patterns resulted from a movement away from the pre-war nucleated plantation village toward a dispersed pattern of tenant farms. The critical factor determining the extent of settlement distribution was the control and ownership of working livestock, agricultural implements, and housing. Shifts in settlement related to plantation reorganization occurred throughout the study area, establishing new spatial and labor relationships between former slave owners, freedmen, and non-landholding whites.

Orser (1988:92) describes two main subtypes of the pattern: the cropper and the tenant farmer. The cropper relied on the amenities of the plantation, utilizing its barn and other outbuildings; the croppers' houses were similar to slave quarters. The tenant farmers' outbuildings were placed near their own residences. These were usually larger than the croppers' homes, and provided the tenant farmers with a greater degree of independence. The typical tenant house was "a dilapidated, unpainted, weather beaten frame cabin leaning out of plumb on rock or brick pilings - unceiled, unscreened, covered with a leaky roof" (Orser 1988:94).

Aiken also became a destination for wealthy northerners who established grand equestrian estates. The start of this trend began when Thomas Hitchcock, a sportsman from Long Island, married Celestine Eustis who had moved to Aiken in 1876 from New Orleans (Vandervelde 1999). This Winter Colony, as this section of Aiken came to be known, centered on life that evolved around horses and included homes, trails, pastures, tracks, and stables. In town, the Winter Colony residents also established banks, churches, a tennis facility, and other community buildings. Aiken today remains much the same, with local cotton, fruit and vegetable farmers sharing this small community with part time wealthy residents who spend their winters in Aiken in much more recreational pursuits.

In the 1950s, the federal government built the Savannah River Nuclear Plant 10 miles south of town, from which Aiken "was wrenched out of its fairyland existence. Today, with a three-tiered society of horse enthusiasts, Southern townspeople, and another stratum of scientists and technocrats, Aiken is a community like no other" (Hale 2000:7).

## 4.0 Results and Recommendations

### 4.1 Results of Background Research

To develop a context for evaluation purposes, background research was conducted at SCIAA in Columbia, South Carolina and focused on all archaeological resources located within a two-km (1.25-mile) radius of the Urquhart-Graniteville 230 kV transmission line corridor. A search of previously recorded resources within the area identified nine previous cultural resources surveys and nine known archaeological sites located within the two-km radius (Figure 4.1). Tables 4.1 and 4.2 list these sites and surveys and information about the nine archaeological sites within the research buffer is provided below. In summary, no eligible or listed NRHP properties are located within the corridor and those lying within the two-km research buffer will not be directly or indirectly impacted by proposed improvements within the existing transmission line corridor.

Sites 38AK0004 and 38AK0005 encompass historic Fort Moore/Savano Town, located adjacent to the Savannah River. This area was inhabited by Indian traders as early as 1685, before Fort Moore was built in 1716 (Groover and Johnson 2001:2). The fort occupied an important military and trading position in the region until the mid-1760s, when newly-founded Augusta began to dominate the deerskin trade (Groover and Johnson 2001:4). Fort Moore was abandoned in 1766 and not reoccupied. This prominent archaeological site was first investigated in 1966 by Dr. William E. Edwards of the University of South Carolina. Later, an avocational archaeologist named J. Walter Joseph conducted excavations at the site(s) from 1969-1970. Fort Moore/Savano Town was listed on the NRHP in 1973. It received no archaeological attention until 2001, when limited investigations were conducted by Savannah River Archaeological Research Program to determine evaluate the condition of the site(s) (Groover and Johnson 2001). Sites 38AK0004 and 38AK0005 are not within the visual or audible range of the proposed improvements to the existing 230 kV Urquhart-Graniteville Transmission Line corridor.

Site 38AK0032 is a small prehistoric mound site. It was recorded by J. W. Joseph in 1973 during construction of the South Aiken bypass. Joseph noted that it had been impacted by looters, and he himself only examined artifacts gathered by a collector. Based on these artifacts, Joseph assigned a Late Archaic affiliation, with “some evidence of later occupation” (38AK0032 Site Inventory Record). This site has not been evaluated for the NRHP.

Site 38AK0043 is a Late Woodland site that was recorded by J. W. Joseph in 1974. Joseph recovered a Palmer point and an unknown number of ceramics, including fiber-tempered ceramics. The site has not been relocated since it was recorded, and its location is considered questionable by the SC SHPO.



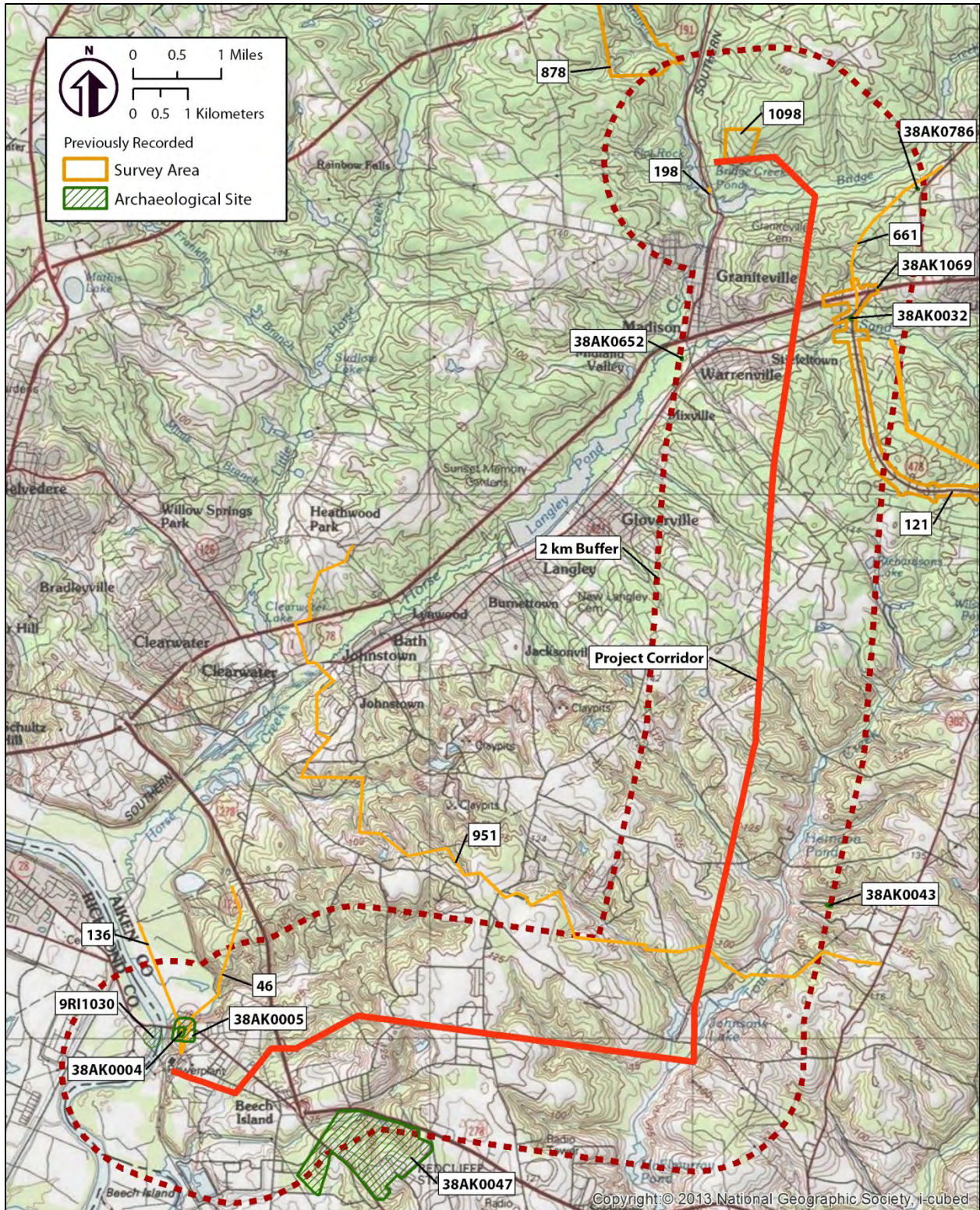


Figure 4.1 Map of all Previous Surveys and Previously Recorded Archaeological Sites within the Two-km project buffer.



Table 4.1 List of all Previous Surveys within the Two-km Project Buffer.

Number	Date	Type	Agency	Author (Consultant)	Survey Name
661	1978	Reconnaissance	DOT	Trinkley (DOT)	Archaeological survey of proposed Aiken Connector
878	2000	Intensive	USACE	Baluha and Hendrix (Brockington)	CR Survey of 5.3 Hectares at the Sage Valley Golf Club
136	2000	Intensive	USACE	Fletcher and Poplin (Brockington)	CR Survey of the Proposed Urquhart Natural Gas Pipeline
46	2001	Intensive	USACE	Fletcher (Brockington)	CR Survey of the Proposed Urquhart Natural Gas Pipeline Re-route, Aiken
198	2001	Intensive	DOT	Frick (DOT)	Int. Archaeo. and Hist. Archi. Survey of SC Rte. 191 over Bridge Creek
1098	2002	Intensive	USACE	O'Neal (Brockington)	CR Survey of the Aiken Combustion Turbine Plant Tract
951	2009	Intensive	FERC	Trinkley and Southerland (Chicora)	Cultural Resources Survey of the Silver Bluff-North Augusta 115kV Transmission Line
27	2011	Reconnaissance	FERC	Bailey (Brockington)	CRS of the Line 1 Replacement Project
121	2012	Reconnaissance	SCDOT	None given (New South & Associates)	Cultural Resource Survey of Seven Miles of Hitchcock Parkway, Aiken

Table 4.2 List of all Previously Recorded Archaeological Resources within the Two-km Project Buffer.

Site Number	Site Description	Cultural Affiliation	NRHP Eligibility
38AK0004	Historic Fort	17th-18th century	<b>Listed on Register</b>
38AK0005	Historic Fort	17th-18th century	<b>Listed on Register</b>
38AK0032	Prehistoric Mound	Late Archaic	Not Assessed
38AK0043	Unknown	Late Woodland	Not Assessed
38AK0047	Historic Plantation	18th-19th century	<b>Listed on Register</b>
38AK0052	Artifact scatter	Unknown Prehistoric/20th century	Recommended Potentially Eligible
38AK0786	Railroad grade	19th-20th century	Recommended Potentially Eligible
38AK1069	Historic Artifact Scatter	20th century	Recommended Not Eligible
9RI1030	Kathryn S. Vessel	20th century	Not Assessed

Site 38AK0047 encompasses the Redcliffe Plantation, an eighteenth- to nineteenth-century plantation located to the southeast of Beech Island, South Carolina. An architectural and archaeological investigation of the site took place in the early 1980s, and was subsequently reported in the Notebook, the journal of the Institute of Archaeology and Anthropology, University of South Carolina (Scurry 1982). The plantation was in use from the 1770s through at least the 1850s, with some occupation possibly occurring later, in the twentieth century (Scurry 1982). The Redcliffe Plantation was listed on the NRHP in 1973. Site 38AK0047 is not within the visual or audible range of the proposed improvements to the existing 230 kV Urquhart-Graniteville Transmission Line corridor.

Site 38AK0652 was identified during a Phase I Cultural Resources Survey (CRS) for a proposed pipeline in 1995 (Berkin et al. 1995). The site is a lithic scatter of indeterminate prehistoric age. However, one pit feature with charred bones was found during the survey, indicating that the site could have the potential to meet Criterion D of the NRHP. Site 38AK0652 has been recommended potentially eligible for the NRHP.

Site 38AK0786 is a railroad grade that was recorded during a Phase I CRS for a proposed pipeline in 1999 (Adams 2002). The investigators note that the grade appears to be a diversion off of Trolley Line Road, indicating that 38AK0786 may have been a portion of the trolley line. Adams (2002) recommended that more research be conducted to confirm this theory. If the site does represent a portion of the old trolley line, they believe that it may be significant to local history. The investigators recommend that 38AK0786 is potentially eligible for the NRHP.

Site 38AK1069 is a twentieth-century artifact scatter located in a disturbed environment adjacent to several roads. It was recorded in 2012 during a Phase I CRS for proposed road widening for the South Carolina Department of Transportation (Davis and Person 2012). Davis and Person (2012) believe that the artifacts were probably deposited in their current location during previous road or housing construction. Site 38AK1069 is recommended not eligible for the NRHP.

Site 9RI1030 consists of the remains of the Kathryn S. vessel, a rear wheel paddle boat that now occupies the west bank of the Savannah River in Richmond County, Georgia. The paddle boat was built in the 1930s in Charleston for use as a passenger service vessel (Newell 1994). According to the recorder, the Kathryn S. was the last paddle boat to operate on the Savannah River (Newell 1994). Site 9RI1030 has not been evaluated for the NRHP, but is listed on the Georgia Register for its state-wide significance.

## 4.2 Survey Results

Brockington archaeologists excavated 837 shovel tests within the project corridor. This number includes delineation shovel tests at identified site locations, and those tests that could not be excavated due to extreme slope or standing water. Notably, the corridor has been maintained for many years over a hilly terrain, which has led to a loss of topsoil and pronounced erosion in some portions of the corridor. In these eroded and deflated areas, 7.5YR 4/6 strong brown clay or 10YR 6/4 light yellowish brown sandy clay subsoil were present at the surface. Isolate 1 was found in this type of environment. Most of the other archaeological resources that were recorded by this survey were identified in those areas where some topsoil has been retained. Sites 38AK1089 and 38AK1090, especially, featured soils that were deeper than those encountered elsewhere on the project corridor.

As a result of these investigations, Brockington personnel identified four sites (38AK1089, 38AK1090, and 38AK1091) and two isolated finds (Isolate 1 and Isolate 2) (Figure 4.2a, 4.2b, and 4.2c; Table 4.3). Each newly identified site contained three or more contemporaneous artifacts, the isolated finds contain only two artifacts each within a 30-m area.

Table 4.3 List of all Newly Recorded Archaeological Resources within the Project Corridor.

<b>Site Number</b>	<b>Site Description</b>	<b>Cultural Affiliation</b>	<b>NRHP Eligibility</b>
38AK1089	Lithic scatter	Indeterminate Prehistoric	Recommended Not Eligible
38AK1090	Historic artifact scatter	19-20th Century	Recommended Not Eligible
38AK1091	Historic artifact scatter	19-20th Century	Recommended Not Eligible
Isolate 1	Lithic and ceramic scatter	Paleoindian/Indeterminate Prehistoric	Recommended Not Eligible
Isolate 2	Lithic scatter	Indeterminate Prehistoric	Recommended Not Eligible

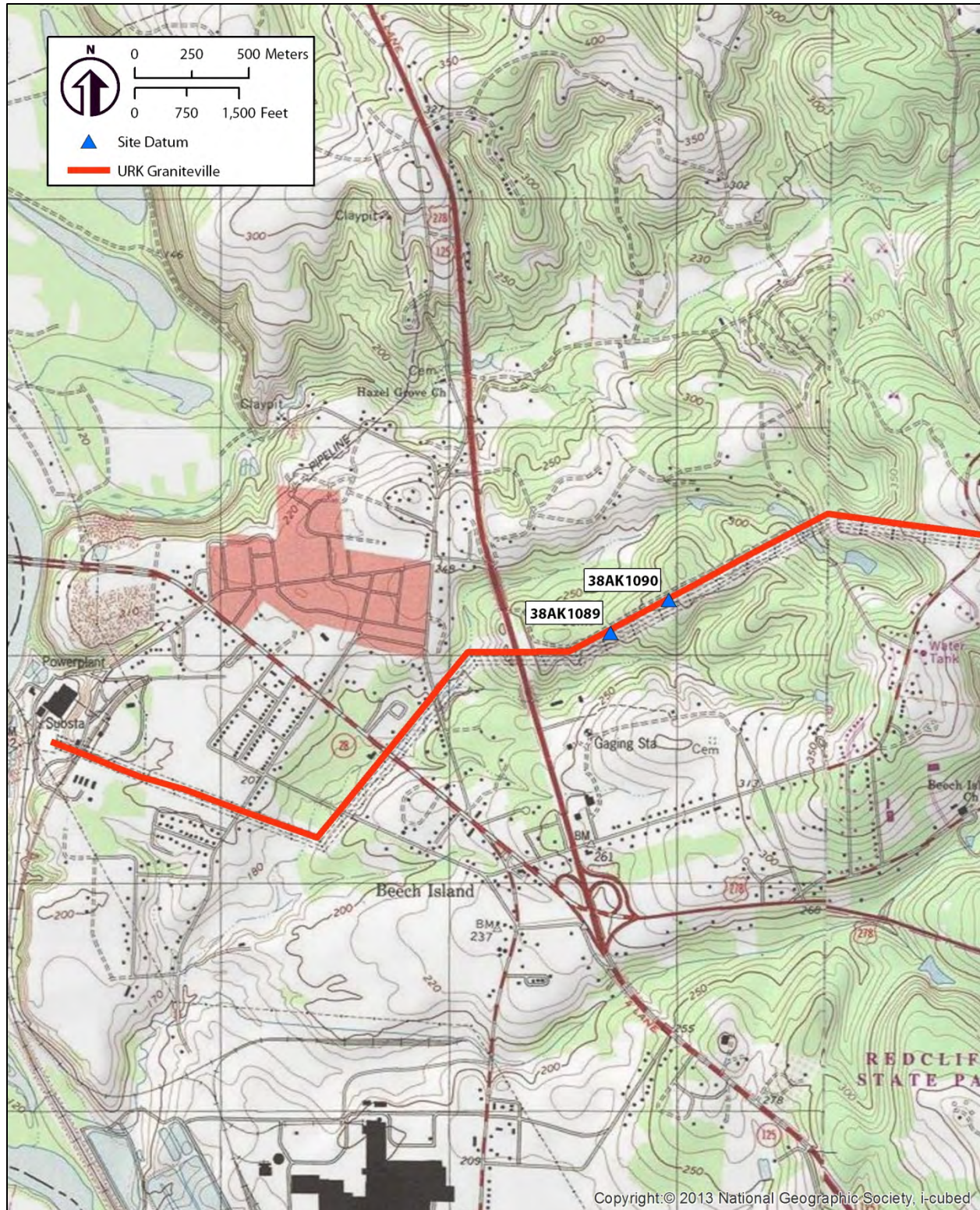


Figure 4.2a Map 1 of 3 showing of all Newly Recorded Archaeological Resources within the Project Corridor.



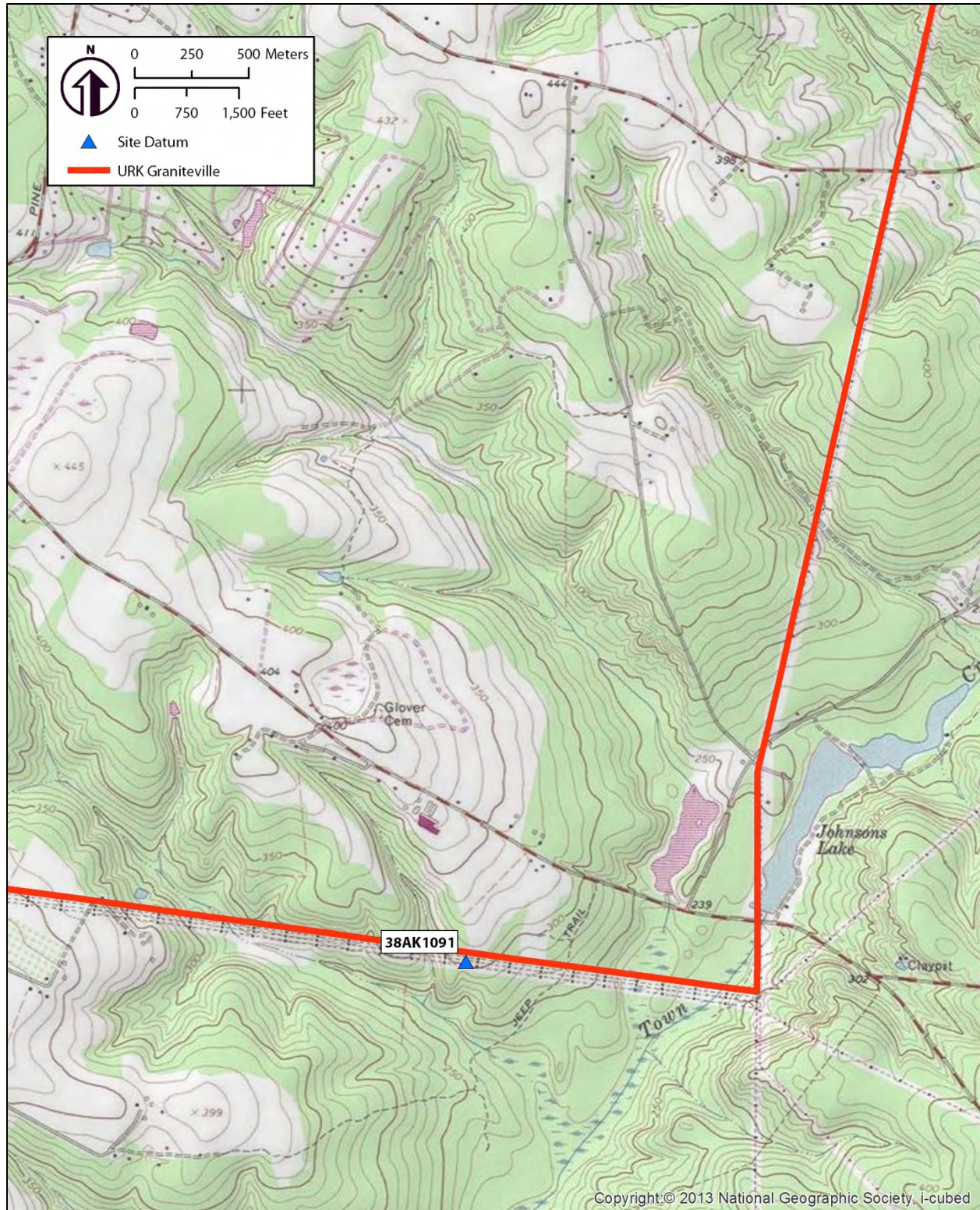


Figure 4.2b Map 2 of 3 showing of all Newly Recorded Archaeological Resources within the Project Corridor.



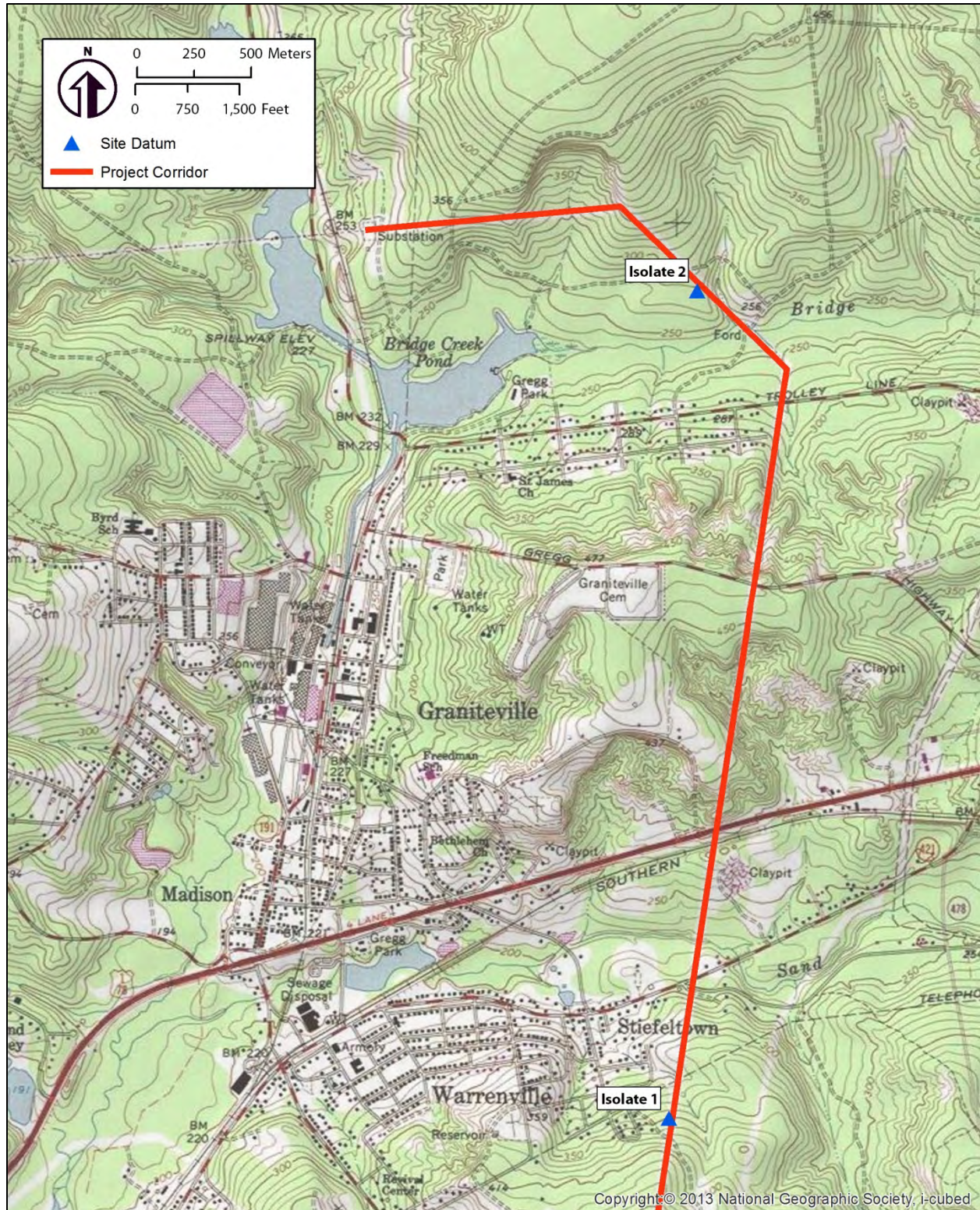


Figure 4.2c Map 3 of 3 showing of all Newly Recorded Archaeological Resources within the Project Corridor.

## 4.2.1 38AK1089

**UTM Zone:** 17N  
**Easting:** 417723 (NAD 83)  
**Northing:** 3699919 (NAD 83)  
**Cultural Affiliation:** Indeterminate Prehistoric  
**Site Type:** Prehistoric Lithic Scatter  
**Site Size:** 10 meters by 10 meters  
**Elevation:** 260 amsl  
**NRHP Recommendation:** Not Eligible

Site 38AK1089 consists of three metavolcanic Prehistoric flake fragments of indeterminate age (Table 4.4). All three artifacts were found in a single shovel test located on the Atomic Road to Scarborough Road segment of the corridor, in Aiken County, South Carolina (see Figure 4.2a). Site 38AK1089 sits on a broad side slope with relatively deep soils. The ground surface slopes from the northwest to the southeast, abruptly dropping off approximately 16 m to southeast of the site (Figure 4.3). Seven shovel tests were excavated at 7.5-m intervals to delineate the positive shovel test (one delineation test 15 m west of the positive was not dug as it was placed on the dirt access road that runs the length of the corridor). Vegetation within the corridor is a mix of scrub brush, grass, weeds and briars (Figures 4.4 and 4.5). Surface visibility was poor except on the dirt road, which features 100 percent surface visibility. As all delineation tests were negative for cultural material, the site size is approximately 10-by-10 m to encompass the single positive test. The positive shovel test displayed 10YR 4/3 brown sandy loam from the surface to about eight cm below surface (cmbs), 10YR 5/8 yellowish brown silty sand from eight to 35 cm, over 7.5YR 5/8 strong brown clay subsoil from 35 to 38 cmbs. The three flakes were found in the second stratum.

Site 38AK1089 is a Prehistoric lithic scatter of indeterminate age within the Urquhart-Graniteville transmission line corridor. While it is located on a broad side slope with intact soils and little evidence of erosion, the site is extremely low density with a single positive shovel test and no diagnostic artifacts. It is unlikely that 38AK1089 can contribute to our understanding of the prehistory of South Carolina or Aiken County. Therefore, Brockington recommends that 38AK1089 is not eligible for inclusion on the NRHP, and that no further management consideration of the site is warranted.

Table 4.4 List of artifacts recovered at 38AK1089.

Count	Weight (g)	Depth (cmbs)	Material Class	Artifact Description
2	13.10	12632.00	Prehistoric Flaked Stone	Metavolcanic 3/4-inch Flake Fragment
1	1.80	12632.00	Prehistoric Flaked Stone	Metavolcanic 1/2-inch Flake Fragment





Figure 4.3 Site map of 38AK1089.



Figure 4.4 View of 38AK1089, looking southwest down the corridor.



Figure 4.5 View of 38AK1089, looking southeast to steep drop in middle ground of photograph.



#### 4.2.2 38AK1090

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**UTM Zone:** 17N  
**Easting:** 417979 (NAD 83)  
**Northing:** 3700058 (NAD 83)  
**Cultural Affiliation:** Nineteenth or Twentieth Century  
**Site Type:** Historic Artifact Scatter  
**Site Size:** 35 meters by 20 meters  
**Elevation:** 300 amsl  
**NRHP Recommendation:** Not Eligible

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Site 38AK1090 consists of a single brick fragment located in a shovel test, and two bricks observed on the surface within 30 m of the positive shovel test (Table 4.5). The two surface bricks were not collected. Site 38AK1090 is located on the Atomic Road to Scarborough Road segment of the corridor, in Aiken County, South Carolina (see Figure 4.2a). Like 38AK1089, 38AK1090 sits on a broad side slope with relatively deep soils. The ground surface is gently rolling, rising to the north and descending to the south. Seven shovel tests were excavated at 7.5-m intervals to delineate the positive shovel test (one delineation test 15 m west of the positive was not dug as it was placed on the dirt access road that runs the length of the corridor)(Figure 4.6). Vegetation within the corridor is a mix of scrub brush, grass, weeds and briars (Figures 4.7 and 4.8). Surface visibility was poor except on the dirt road, which features 100 percent surface visibility. All delineation tests were negative for cultural material, but given the presence of the bricks on the surface, the site size is approximately 30-by-30 m. The positive shovel test displayed 7.5YR 5/2 brown sand from the surface to about 50 cmbs, over very compact 7.5YR 5/8 strong brown sandy clay subsoil from 50 to 60 cmbs. The brick fragment was found in the first stratum.

Site 38AK1090 is an extremely low density historic artifact scatter that likely dates to the nineteenth or twentieth century within the Urquhart-Graniteville transmission line corridor. While it is located on a broad side slope with intact soils and little evidence of erosion, the site is extremely low density and only bricks were noted. It is possible that 38AK1090 was once an historic homestead, though there is not enough evidence to state this with certainty. It is unlikely that 38AK1090 can contribute to our understanding of the history of South Carolina or Aiken County. Therefore, Brockington recommends that 38AK1090 is not eligible for inclusion on the NRHP, and that no further management consideration of the site is warranted.

Table 4.5 List of artifacts recovered at 38AK1090.

Count	Weight (g)	Depth (cmbs)	Material Class	Artifact Description
1	1.30	0-30	Ceramics	Brick, Fragment



Figure 4.6 Site map of 38AK1090.





Figure 4.7 View of 38AK1090, looking southeast.



Figure 4.8 View of 38AK1090, looking southwest towards a slight rise and the location of 38AK1089.

## 4.2.3 38AK1091

**UTM Zone:** 17N  
**Easting:** 423548 (NAD 83)  
**Northing:** 3699728 (NAD 83)  
**Cultural Affiliation:** Nineteenth or Twentieth Century  
**Site Type:** Historic Artifact Scatter  
**Site Size:** 25 meters by 20 meters  
**Elevation:** 300 amsl  
**NRHP Recommendation:** Not Eligible

Site 38AK1091 consists of four historic artifacts of that were located within three positive shovel tests (Table 4.6). This site is located on the Pine Log Road to Storm Branch Road segment of the corridor, in Aiken County, South Carolina (see Figure 4.2b). The four artifacts include three fragments of stoneware and one amber glass sherd. Site 38AK1091 is situated on a low ridge top and the area is eroded with deflated soils. Surface visibility was poor. Twenty shovel tests were excavated at 7.5-m intervals to delineate the site, resulting in three positive shovel tests (Figure 4.9). The site size is approximately 25 m from east to west and 20 m from north to south. As elsewhere, vegetation within the corridor is a mix of scrub brush, grass, weeds and briars (Figures 4.10 and 4.11). A typical shovel test contained 10YR 5/6 yellowish brown loamy sand from the surface to about 20 cmbs, over a sterile and compact 10YR 6/4 light yellowish brown silty sand subsoil. The four artifacts were found in the first stratum.

Site 38AK1091 is low density historic artifact scatter that likely dates to the nineteenth or twentieth century. Due to the paucity of artifacts, it is not known whether this site represents the prior location of a house, dump site, or some other historic site type. Site 38AK1091 is located on an eroded ridge top within an extant corridor and contains deflated, non-intact soils. Given the site's low artifact density and lack of intact soils, it is unlikely that 38AK1091 can contribute to our understanding of the history of South Carolina or Aiken County. Therefore, Brockington recommends that 38AK1091 is not eligible for inclusion on the NRHP, and that no further management consideration of the site is warranted.

Table 4.6 List of artifacts recovered at 38AK1091.

Count	Weight (g)	Depth (cmbs)	Material Class	Artifact Description
1	2.70	0-10	Ceramics	Stoneware, Alkaline Glazed Gray-Bodied Body
1	8.10	0-10	Ceramics	Stoneware, Unglazed Buff-Bodied Base
1	1.20	0-21	Ceramics	Stoneware, Brown Glazed Buff-Bodied
2	4.70	0-21	Glass	Amber Molded Glass Container Body

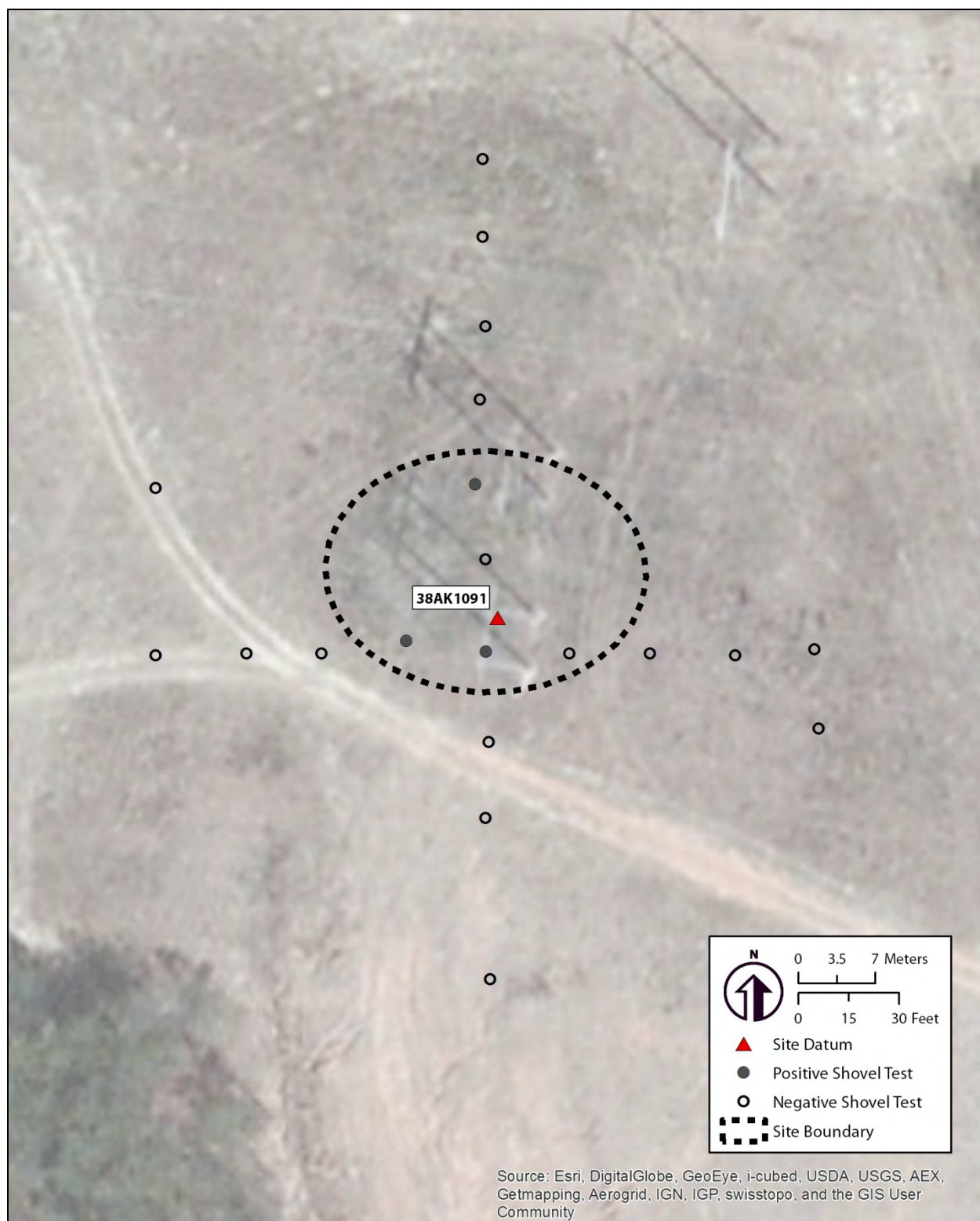


Figure 4.9 Site map of 38AK1091.





Figure 4.10 View of 38AK1091, looking east along the corridor.



Figure 4.11 View of 38AK1091, looking south down slope.

#### 4.2.4 Isolate 1

**UTM Zone:** 17N

**Easting:** 426519 (NAD 83)

**Northing:** 3712134 (NAD 83)

**Cultural Affiliation:** Paleoindian and Indeterminate Prehistoric

**Site Type:** Prehistoric Lithic/Ceramic Scatter

**Site Size:** 10 meters by 10 meters

**Elevation:** 350 amsl

**NRHP Recommendation:** Not Eligible

Isolate 1 consists of an unfinished Paleoindian point and a Prehistoric ceramic sherd (Table 4.7). Both artifacts were found on the surface. This site is located on the Golf Course to Augusta Road segment of the corridor, in Aiken County, South Carolina (see Figure 4.2c). Though the Paleoindian point is a relatively rare, diagnostic find, as there are only two non-contemporaneous artifacts that were identified within 30 m at this location these artifacts are still classified as an isolated find. The two artifacts were identified on a sandy trail/eroded slope wash in a very disturbed environment; multiple power line poles surround the find location, and a substation has been constructed nearby. Upslope to the southwest is a mobile home where modern trash is eroding down to the find location. This building is not visible within the site photos of the corridor, but is obvious in Figure 4.12. This area was less vegetated than other parts of the corridor, though there are patches of scrub brush, grass, weeds and briars (Figures 4.13 and 4.14). Surface visibility was moderate, varying between about 50 percent on brushy areas, but 100 percent on the sandy slope wash. Within this highly eroded environment, 10YR 6/4 light yellowish brown silty sand subsoil is present at the surface. A total of nine shovel tests were attempted at 7.5-m intervals to delineate the site. All shovel tests were negative for cultural material, and the site area was determined to measure about 10-by-10 m.

The second artifact found at the site, an eroded sand-tempered body sherd, is undoubtedly from a later, though indeterminate, prehistoric period. Neither artifact was found *in situ*; instead, both were located on an eroded slope wash. Isolated finds are generally not eligible for the NRHP. With its data potential exhausted, Brockington recommends that Isolate 1 is not eligible for inclusion on the NRHP, and that no further management consideration of the site is warranted.

Table 4.7 List of artifacts recovered at Isolate 1.

Count	Weight (g)	Depth (cmbs)	Material Class	Artifact Description
1	25.70	Surface	Prehistoric Flaked Stone	Coastal Plain Chert Projectile Point Tool Distal - Unfinished Paleoindian
1	2.90	Surface	Prehistoric Ceramics	Eroded Body Sherd, Fine/Medium Sand Tempered





Figure 4.12 Site map of Isolate 1.



Figure 4.13 View of Isolate 1, looking south along corridor and eroded slope wash.



Figure 4.14 View of Isolate 1, looking north along disturbed corridor and down slope; the fenced area to the west is a substation.



#### 4.2.5 Isolate 2

---

**UTM Zone:** 17N  
**Easting:** 426685 (NAD 83)  
**Northing:** 3715735 (NAD 83)  
**Cultural Affiliation:** Indeterminate Prehistoric  
**Site Type:** Prehistoric Lithic Scatter  
**Site Size:** 15 meters by 10 meters  
**Elevation:** 275 amsl  
**NRHP Recommendation:** Not Eligible

---

Isolate 2 is an isolated find that consists of two lithic artifacts located in two shovel tests (Table 4.8). Isolate 2 is located on the Substation to Trolley Road segment of the corridor, in Aiken County, South Carolina (see Figure 4.2c), and is situated on a partially eroded ridge nose with poor surface visibility. A total of 10 shovel tests were excavated at 7.5-m intervals to delineate the find (Figure 4.15). The vegetation within the corridor is a mix of scrub brush, grass, weeds and briars (Figures 4.16 and 4.17). With only two positive shovel tests, the isolated find measures 10 m east to west and 15 m north to south. A typical shovel test contained compact 10 YR 4/2 dark grayish brown sandy loam from the surface to about 34 cmbs, over compact and sterile 10 YR 6/2 light brownish gray silty sand.

Isolate 2 consists of two lithic artifact fragments. Isolated finds are generally not eligible for the NRHP. Indeed, Brockington recommends Isolate 2 not eligible for inclusion on the NRHP, and that no further management consideration of the site is warranted.

Table 4.8 List of artifacts recovered at Isolate 2.

Count	Weight (g)	Depth (cmbs)	Material Class	Artifact Description
1	10.10	0-10	Prehistoric Flaked Stone	Coastal Plain Chert Biface Tool Fragment
1	0.10	0-34	Prehistoric Flaked Stone	Coastal Plain Chert 1/4-inch Flake Fragment





Figure 4.15 Site map of Isolate 2.



Figure 4.16 View of Isolate 2, looking north upslope along corridor.



Figure 4.17 View of Isolate 2, looking south to edge of ridge nose; a wetland is located at the base of the ridge out of view in the photograph.

### 4.3 Recommendations

Nine previously recorded archaeological resources were identified within the two-km project buffer as a result of archival research. This includes eight archaeological resources in South Carolina and one resource in Georgia. None of these archaeological sites are within the project ROW, and Brockington does not anticipate that any of these resources will be affected by the proposed 230kV upgrades to equipment and structures within the project ROW.

Five archaeological resources were identified as a result of intensive shovel test survey, including three sites (38AK1089, 38AK1090, and 38AK1091) and two isolated finds (Isolate 1 and Isolate 2). All three of the newly-identified sites display very low artifact density, and lack diagnostic artifacts. One of the isolated finds identified during this survey (Isolate 1) contains a Paleoindian point, a diagnostic artifact type that is rarely encountered in South Carolina. However, Brockington archaeologists found this point on the surface and believe that it was redeposited in this location. It likely eroded from an area further upslope of the find spot, possibly outside of the project ROW. Isolated finds are generally not eligible for the NRHP, and the context of the find does not support an argument for its recommending it otherwise.

Brockington recommends that none of the resources identified during this survey have the potential to contain significant archaeological data, and that none are eligible for the NRHP. Brockington further recommends that no archaeological resources that are listed, or eligible for listing, on the NRHP will be impacted by the proposed 230kV transmission line upgrades, and that the project should be allowed to proceed.



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November 17, 2014

Jana J. Futch  
Brockington & Associates, Inc.  
3850 Holcomb Bridge Road, Suite 105  
Norcross, GA 30092

Re: A Phase I Archaeological Resource Survey of the 17.6-Mile Urquhart-Graniteville  
Transmission Line Corridor, Revised Final Report  
Aiken County, South Carolina  
SHPO Project No. 14-ED0099

Dear Jana Futch:

Thank you for your letter of November 7, which we received on November 12, regarding the above-named project. We also received the revised final report, *A Phase I Archaeological Resources Survey of the 17.6-Mile Urquhart Graniteville Transmission Line*, that you submitted as due diligence. This letter is for preliminary, informational purposes only and does not constitute consultation or agency coordination with our Office as defined in 36 CFR 800: "Protection of Historic Properties" or by any state regulatory process. The recommendation stated below could change once the responsible federal and/or state agency initiates consultation with our Office.

Our office accepts the final report and no further documentation is necessary for this project.

If you have any questions, please contact me at (803) 896-6181 or at [edale@scdah.state.sc.us](mailto:edale@scdah.state.sc.us).

Sincerely,

Emily Dale  
Staff Archaeologist/GIS Coordinator  
State Historic Preservation Office

May 21, 2014

Mr. Nathan Bass  
UC Synergetic, LLC  
10101 Claude Freeman Dr.  
Suite 100-W  
Charlotte, North Carolina 28262

RE: Literature Review and Windshield Reconnaissance for the Urquhart-Graniteville 230kV  
Siting Study, Aiken County, South Carolina

Dear Nathan:

In March 2014, Brockington and Associates, Inc. contracted with UC Synergetic, LLC (UCS) to conduct a cultural resources literature review for the proposed Urquhart-Graniteville 230kV Siting Study. The Urquhart-Graniteville Study Area is located in western Aiken County, South Carolina, with a small portion extending into far eastern Richmond County, Georgia, and consists of approximately 48 square miles. The research results outlined in this letter report provide information for planning purposes only and are not meant to serve as compliance with Section 106 of the National Historic Preservation Act or other state and/or federal legislation.

#### **Literature Review, Architecture**

We conducted a literature review for the Urquhart-Graniteville Study Area to determine if any properties or sites had been recorded within the proposed project area. This research included an initial review of all previously recorded architectural resources located within the study area boundary on file with Archsite, South Carolina's digital repository for cultural resources. This digital data was supplemented with a records check at the South Carolina Institute of Archaeology and Anthropology (SCIAA) and the South Carolina Department of Archives and History (SCDAH) in Columbia, South Carolina. A small portion of the 48 square mile study area extends into Georgia and that information was gathered from an online data system (Georgia's Natural, Archaeological, and Historic Resources GIS [GNAHRGIS]). All previously recorded properties are identified in our dataset.

The data collected in Columbia and GNAHRGIS includes:

1. All recorded aboveground historic resources;
2. All recorded archaeological resources;
3. All archaeological sites, structures, and districts that are listed on the National Register of Historic Places (NRHP).

The Urquhart-Graniteville Study Area contains multiple and sometimes overlapping properties and districts. The status of each previously recorded architectural property is discussed in greater detail below and any additional information gleaned during the windshield survey is provided in the accompanying GIS data set.



### Literature Review, Archaeology

After collecting digital data from Archsite, we conducted a records check of archaeological site files at SCIAA in Columbia as well as a review of GNHARGIS information. A review of these records revealed that there are nine (9) previously recorded archaeological sites within the Urquhart-Graniteville Study Area (8 in SC, 1 in GA; see Table 1). Two archaeological sites are listed on the NRHP. These are 38AK0004 and 38AK0005, which overlap to encompass Fort Moore. Another site 38AK0047, Redcliffe Plantation, is associated with an NRHP property, whose official boundary falls outside of the study area.<sup>1</sup> For planning purposes, 38AK0047 should be afforded a “listed” weighting, although the archaeological site boundary needs no viewshed consideration. The historic Redcliff Plantation is currently a South Carolina State Park. Two (2) archaeological sites have been recommended as potentially eligible; one (1) site has been recommended not eligible, and three (3) additional sites have no formal assessment. NRHP sites should be avoided for direct disturbance. Should they fall within construction zones, potentially eligible and unassessed sites would require further investigation and consultation with SHPO to make a formal recommendation. Sites determined not eligible need no further consideration in project planning.

**Table 1. Previously Recorded Archaeology Sites within the Urquhart-Graniteville Study Area.**

Site Number	Site Description	Cultural Affiliation	NRHP Eligibility
38AK0004	Historic Fort	17th-18th century	<b>Listed on NRHP</b>
38AK0005	Historic Fort	17th-18th century	<b>Listed on NRHP</b>
38AK0032	Prehistoric Mound	Late Archaic	Unassessed
38AK0043	Unknown	Late Woodland	Unassessed
38AK0047	Historic Plantation	18th-19th century	<b>Associated with NRHP Listed Property (see note)</b>
38AK0052	Artifact scatter	Unknown Prehistoric/20th century	Potentially Eligible
38AK0786	Railroad grade	19th-20th century	Potentially Eligible
38AK1069	Historic Artifact Scatter	20th century	Not Eligible
9RI1030	Kathryn S. Vessel	maritime	Unassessed

### Windshield Reconnaissance

From May 12-14, 2014, the project historian conducted a windshield reconnaissance of the Urquhart-Graniteville Study Area. As outlined in National Register Bulletin #24, a windshield reconnaissance-level survey is useful in ascertaining “a general picture of the distribution of different types and styles [of architectural resources], and of the character of different neighborhoods” (Parker 1985:35-36). Windshield surveys are also useful for making *preliminary* assessments of eligibility based on the architectural integrity of properties, but not in ascertaining the historical associations a property might possess.

<sup>1</sup> Redcliffe Plantation was listed on the NRHP in 1973 as an architectural property; the registered archaeological site boundary for 38AK0047 (drawn in 1982) extends beyond the NRHP boundary, which falls outside of the Urquhart-Graniteville Study Area. The South Carolina site form notes that the site is “listed”; however, the original NRHP form was never revised to incorporate the subsequent archaeological studies.

The Urquhart-Graniteville Study Area is located in western Aiken County, South Carolina with a small portion extending across the Savannah River into eastern Richmond County, Georgia. The Study area encompasses a number of roadways, including: US Hwy. 278, SC Hwy. 28, Pine Log Road, Beech Island Avenue, Herndon Dairy Road, Pine Log Road, US Hwy. 1, SC Hwy. 421, and a variety of municipal streets in the communities of Beech Island, Warrentonville, and Graniteville. As a whole, the Urquhart-Graniteville Study Area contains significant infill and modern (mid-20<sup>th</sup> Century to present) development as a result of its proximity to the cities of Aiken and Augusta. A substantial portion of the building stock is modular or pre-fabricated homes dating from the 1970s to present. Several horse farms are also scattered in the more rural portions of the Study area.

The Urquhart-Graniteville reconnaissance consisted of a vehicular inspection of architectural resources visible from all publicly accessible roads within the study area. It is important to note that topographic and aerial maps often indicate properties located along private roads as well as abandoned and existing field roads. In this particular study area, it was sometimes difficult to observe properties from public rights-of-way due to dense vegetation. If a previously recorded property was found to be inaccessible or not visible, we tried referencing current aerials and Aiken County tax assessor's data to determine if a building was extant. This was sometimes problematic due to poor locational and descriptive information in the dataset. The purpose of our windshield reconnaissance was to:

1. Evaluate all previously recorded architectural resources (if any);
2. Locate architectural resources not previously recorded and that appear to meet the minimum fifty year age requirement for the NRHP, and
3. Identify potentially eligible NRHP properties and mark in the GIS data set.

There are a total of seven (7) properties (both architectural and archaeological) listed on the NRHP. One of these is the Graniteville Historic District, which was also declared as a National Historic Landmark in 1978. The Graniteville NRHP/NHL district includes a cotton mill, canal, Gothic Revival mill housing, and other architectural resources associated with the oldest textile mill in South Carolina. The NRHP boundary for Aiken Winter Colony Historic District 1 also penetrates the larger study area. The Warrentonville Elementary School, Oakland Plantation, The Cedars, and the site of Fort Moore (archaeological sites 38AK0004 and 38AK0005) are also listed on the NRHP. A final NRHP property is archaeological site 38AK0047 (Redcliffe Plantation), noted in the previous section. The archaeological site boundary itself is not in the official nomination form for Redcliffe Plantation; however, it is directly associated with the NRHP listed property, and is therefore considered an extension of it.

The majority of previously recorded resources located within the study area were identified through architectural surveys conducted during the late 1980s (Preservation Consultants, Inc. 1986, 1988). There are a total of 52 previously recorded above-ground individual resources in the 48 square mile study area. Five (5) are eligible; fifty (47) are not eligible.<sup>2</sup>

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<sup>2</sup> There were two additional previously recorded properties in the original dataset, which we subsequently deleted because they are now listed on the NRHP. These include the Glover House (ID#0362) and The Cedars (ID#0281).

There are seven (7) “historic areas” noted by polygons in the GIS dataset. These are previously recorded properties that contain multiple resources that were evaluated holistically. Of these 7 historic areas, none were recommended as eligible historic districts or properties.

There are three historical communities that lie within the Study area: Beech Island on the southern end of the transmission line, and Warrenton and Graniteville abut each other on the northern end. During the windshield survey, we paid particular attention to these areas to ascertain if they might contain possible additional historic districts. Moreover, the architectural surveys of the late 1980s (Preservation Consultants, Inc. 1986, 1988) recorded numerous resources within the Graniteville and Warrenton areas; those previously discussed “historic areas” are depicted on the resource location map. We reviewed the accompanying report inset maps; however, those maps did not provide sufficient locational or descriptive detail for us to accurately plot each building. However, we did review the building stock during the windshield survey to identify any potentially eligible individual architectural resources within those areas. Any newly identified resources are noted in our GIS dataset.

The 1986 architectural survey report (Preservation Consultants, Inc.) suggested the community of Graniteville may contain additional historic districts beyond the 1978 National Historic Landmark district. After a field review, we found one area in western Graniteville that retained sufficient architectural integrity and cohesiveness to exhibit such potential. This district (bound by 4<sup>th</sup> Street on the north, Marshall Street on the south, Ergle Street on the west and Leitner Street on the east) is an excellent collection of early twentieth century mill housing. The 1986 report did not recommend the presence of historic districts in Warrenton or Beech Island.

During the windshield survey, we found that several of the previously recorded properties had been plotted incorrectly in Archsite, though the discrepancies generally amounted to less than 100 feet. Those resources that could be visually verified during the windshield survey are now correctly mapped in the GIS dataset.

During the windshield survey, we identified an additional eight (8) architectural properties (including the above referenced district in west Graniteville) that appear to retain sufficient architectural integrity to be considered eligible for inclusion in the NRHP. These are primarily located within the Graniteville and Warrenton communities in the northern portion of the study area.

Where possible, properties considered potentially eligible for the NRHP should be avoided and visual effects considered during project planning. In addition, we observed other properties that appear to be 50 years old (thus, meeting the minimal standard for NRHP eligibility consideration) distributed throughout the study area; these are properties that would be recorded by an architectural historian during a standard Section 106 survey. Due to alterations or modifications, these properties appear to have lost their architectural integrity and may not meet the criteria of eligibility for listing on the NRHP under Criterion C. However, these properties might possess historical significance which could only be determined through more detailed archival research

such as would be required for a Section 106 cultural resources survey. We did not attempt to plot each of these resources in our GIS dataset.

The Urquhart-Graniteville Resources Map (Figure 1) provided below details the findings from both the literature review and windshield reconnaissance. The projection used to develop the map and shapefiles was NAD 1927 UTM Zone 17.

Should you have any questions regarding the GIS data or require any additional information on a particular property, please do not hesitate to send me an email ([patriciastallings@brockington.org](mailto:patriciastallings@brockington.org)) or call 678-638-4126.

Sincerely,



F. Patricia Stallings  
Senior Historian

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**Archaeological Survey of the Graniteville-South Augusta 230 kV Tie Line at  
the Urquhart Generating Station Site**

**Aiken County, South Carolina**

**Addendum Report**

**Submitted to:**

**UC-Synergetic, LLC  
Fort Mill, South Carolina**

**Submitted by:**

**Brockington and Associates, Inc.  
David Baluha  
Archaeologist**

**March 1, 2017**

**Archaeological Survey of the Graniteville-South Augusta 230 kV Tie Line at the Urquhart  
Generating Station Site, Aiken County, South Carolina**

**Addendum Report**

**David Baluha**

**February 27, 2017**

**1.0 Introduction**

In February 2017, Brockington and Associates, Inc. (Brockington), contracted with UC Synergetic, LLC (UCS) to conduct an archaeological survey of the Graniteville-South Augusta 230 kV Tie Line on the Urquhart Generating Station site in Aiken County, South Carolina. This report augments work conducted by Brockington on the Urquhart-Graniteville transmission line corridor for UCS in March 2014 (Futch and Stallings 2014), and has been submitted to the South Carolina State Historic Preservation Office (SHPO) as an addendum to the report previously filed for the project in 2014. Both Brockington projects were conducted for UCS on behalf of South Carolina Electric and Gas (SCE&G), in preparation for proposed construction of a new 230 kV transmission line, which will require a Certificate of Public Convenience and Necessity (CPCN) by the South Carolina Public Service Commission (SCPSC). The goal of the archaeological survey was to determine whether any historic properties (i.e., sites, buildings, structures, objects, or districts listed on or eligible for the National Register of Historic Places [NRHP]) may be affected by this transmission line installation project.

SCE&G proposes to construct new or upgrade existing transmission line infrastructure at its Urquhart Generating Station site. The proposed project extends across the Urquhart Generating Station site and ties two extant transmission lines. The project right of way (ROW) measures approximately 4,850 feet (0.92 mile) long and 100 feet wide, which is the Area of Potential Effect (APE). The western 2,390 feet of the ROW follows an existing transmission line. The eastern 2,460 feet of the ROW follows a newly proposed corridor. Figure 1 shows the location of the Graniteville-South Augusta 230 kV Tie Line ROW on the United States Geological Survey (USGS 1981) *Augusta East, GA-SC* quadrangle. Figure 2 shows the location of the Graniteville-South Augusta 230 kV Tie Line ROW on recent aerial imagery.



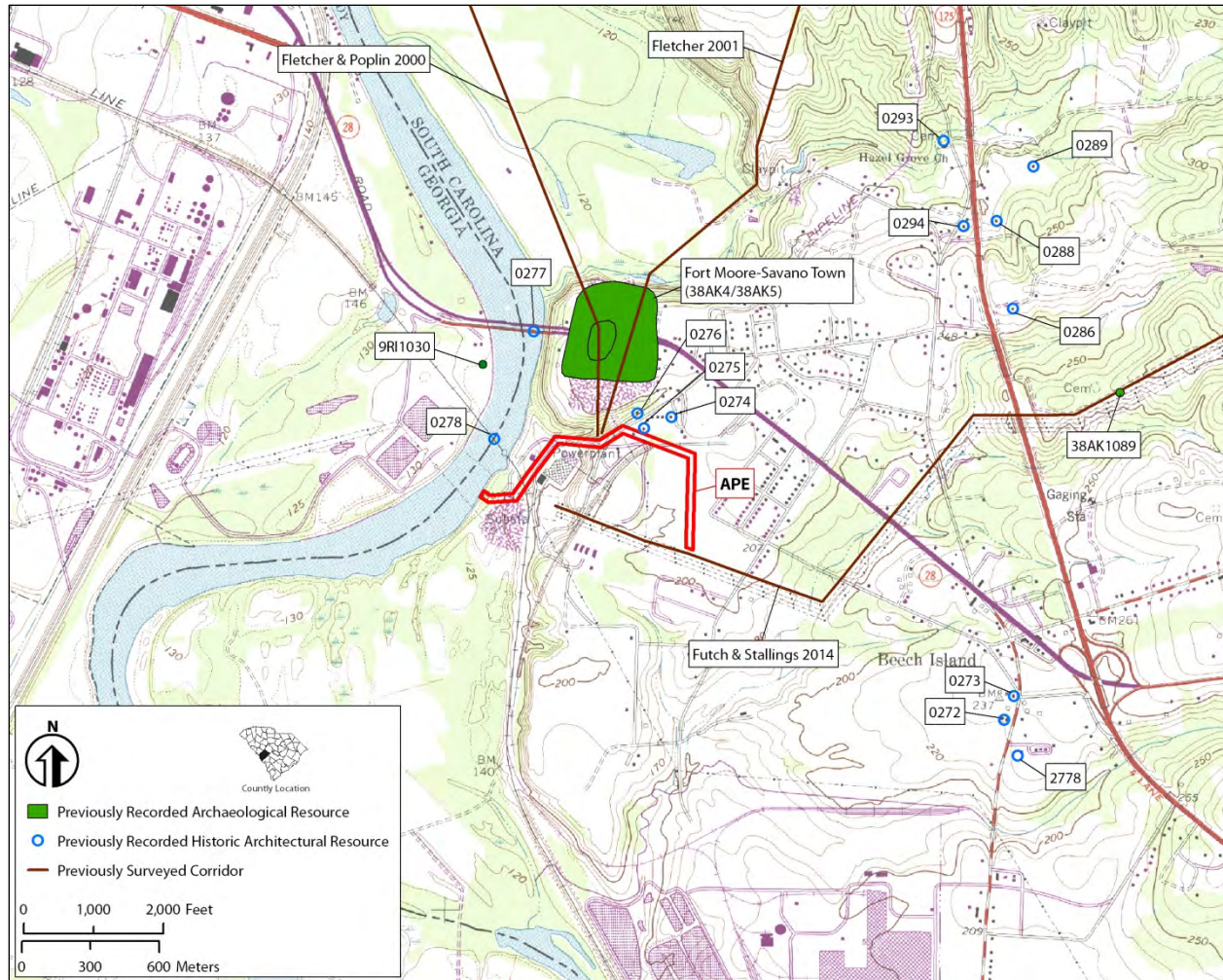


Figure 1. The location of the Graniteville-South Augusta 230 kV Tie Line ROW on the USGS (1981) *Augusta East, GA-SC* quadrangle.



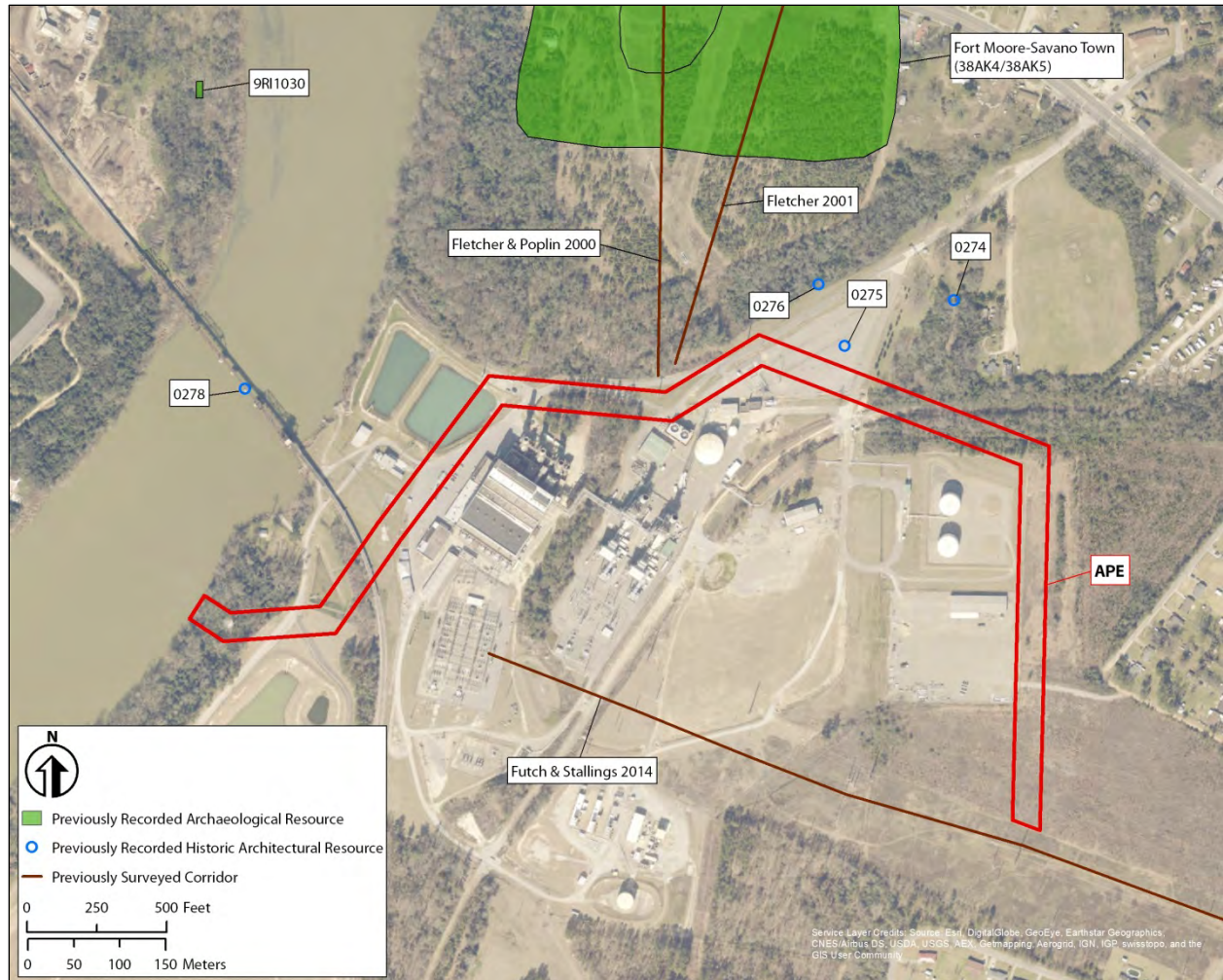


Figure 2. The location of the Graniteville-South Augusta 230 kV Tie Line ROW on recent aerial imagery.

## 2.0 Setting

The Urquhart Generating Station site is located in Beech Island, Aiken County, South Carolina. The site is situated southwest of the intersection of SC Route 28 (Sand Bar Ferry Road) and S-3-379 (Urquhart Drive) and overlooks the Savannah River. The Urquhart Generating Station was first constructed in the 1950s and has witnessed several episodes of construction and expansion since then. The Seaboard Coast Line Railroad extends through the western portion of the site before crossing the Savannah River into Georgia. An abandoned railroad spur extends east from the Seaboard Coast Line Railroad northeast through the site. The site is mostly developed with several buildings, asphalt or gravel parking lots and roads, and collection ponds. Small pockets of undeveloped or wooded land extend across the northern and eastern portions of the site. Wooded areas are covered in mixed hardwood and pine forest. Figures 3 and 4 provide views of the project setting.





Figure 3. Views of the project setting: wooded area near PI 8 looking east (top) and pond near PI 5 looking south (bottom).





Figure 4. Views of the project setting: grassy slope near PI 4 looking west (top) and graded, fallow area near PI 2 looking south (bottom).

According to Griffith et al. (2002), “An ecoregion denotes areas of general similarity in ecosystems and in the type, quality, and quantity of environmental resources.” The project area extends across two Environmental Protection Agency (EPA) Level IV Ecoregions, including Regions 65c (Sand Hills) and 65p (Southeastern Floodplains and Low Terraces), as summarized by Griffith et al. (2002). Predominant soil types include Chewacla loam near the Savannah River, Vacluse-Ailey Complex soils on the slopes leading away from the river, Dothan loamy sand on the ridge above the Savannah River, and Udorthents in various developed areas across the site (Rogers 1985). The site ranges in elevation from approximately 120 feet near the Savannah River to over 200 feet above mean sea level.

### **3.0 Results and Recommendations**

#### **3.1 Introduction**

Archaeological survey of the Graniteville-South Augusta 230 kV Tie Line conforms to the South Carolina Standards and Guidelines for Archaeological Investigations (COSCAPA et al. 2013). Tasks performed include background research and archaeological field investigations.

#### **3.2 Background Research**

Background research for the current project included a review of the findings of Futch and Stallings (2014) and an examination of historic maps. Before conducting the archaeological field investigation, archaeologist David Baluha reviewed a variety of historic maps, including Mills (1979) 1825 map of Edgefield District and USGS (1921, 1965, and 1995) topographic maps. Futch and Stallings (2014) conducted background research within a 1.2-mile (two-kilometer) buffer encompassing the Urquhart-Graniteville transmission line ROW, which subsumes the current ROW. Using the same 1.2 mile buffer for the current project, project archaeologist David Baluha conducted additional archival research in February 2017. This research was conducted on the ArchSite program (maintained by the South Carolina Department of Archives and History and South Carolina Institute of Archaeology and Anthropology) and the GNAHRGIS database (maintained by the Georgia Archaeological Site File and the Georgia Historic Preservation Division). No new eligible or listed cultural resources have been recorded since 2014. Five relevant cultural resource investigations have occurred within 1.2 miles of the project. These include the historic resources survey of the western portion of Aiken County (Preservation Consultants 1986), three Phase I surveys conducted by Brockington (Fletcher 2001, Fletcher and Poplin 2000, and Futch and Stallings 2014), and archaeological investigation at Fort Moore/Savano Town (38AK4 and 38AK5) by the Savannah River Archaeological Research Program (SRARP) (Groover and Johnson 2001). A total of 16 cultural resources are located within 1.2 miles of the project. Table 1 summarizes these 16 resources. One resource (Fort Moore/Savano Town [38AK4 and 38AK5]) that is listed on the NRHP is located within the 1.2 mile buffer. This resource is described below.



Table 1. Summary of previously identified cultural resources located within 1.2 miles (two kilometers) of the project.

Resource	Description	Condition	Date	NRHP Status	Reference(s)	Location
<b>Archaeological Sites</b>						
9RI1030	<i>Kathryn S.</i> rear-wheeled paddle vessel	unknown	20th century	not assessed	Newell 1994	1,300 feet northwest
38AK4/38AK5	Fort Moore/Savano Town	intact	17th-18th centuries	Listed 1973	Groover and Johnson 2001	660 feet north
38AK1089	lithic scatter	intact	unknown Pre-Contact	not eligible	Futch and Stallings 2014	6,360 feet east-northeast
<b>Historic Resources</b>						
272	McElmurray Cotton Gin	unknown	ca. 1930	not eligible	Preservations Consultants 1986	5,090 feet east-southeast
273	one story stuccoed brick commercial structure	intact	ca. 1930	not eligible	Preservations Consultants 1986	5,050 feet east-southeast
274	one story frame residence	intact*	ca. 1925	not eligible	Preservations Consultants 1986	440 feet north
275	one story frame residence	destroyed	ca. 1925	not eligible	Preservations Consultants 1986	85 feet north
276	one story frame residence (craftsman)	destroyed	1925	not eligible	Preservations Consultants 1986	220 feet north
277	Sand Bar Ferry Bridge (SC Route 28)	intact	1923	not eligible	Preservations Consultants 1986	1,600 feet north-northwest
278	Seabard Coast Line Railroad Bridge	intact	1930	eligible	Preservations Consultants 1986	600 feet west
286	one story frame residence	unknown	ca. 1870	not eligible	Preservations Consultants 1986	5,120 feet northeast
288	one story frame residence	unknown	ca. 1920	not eligible	Preservations Consultants 1986	5,595 feet northeast
289	one story frame residence	unknown	ca. 1910	not eligible	Preservations Consultants 1986	6,410 feet northeast
293	Hazel Grove Baptist Church cemetery	unknown	1917	not eligible	Preservations Consultants 1986	5,800 feet north-northeast
294	two story residence	unknown	ca. 1900	not eligible	Preservations Consultants 1986	5,170 feet northeast
2778	one story frame residence	unknown	ca. 1940	not eligible	Long 2009	5,490 feet east-southeast

\*incorrectly plotted on ArchSite

The NRHP listed property Fort Moore/Savano Town includes archaeological Sites 38AK4 and 38AK5 and covers 38.5 acres on a bluff overlooking the Savannah River to the west. This area was inhabited by Indian traders as early as 1685, before Fort Moore was built in 1716 (Groover and Johnson 2001:2). The fort occupied an important military and trading position in the region until the mid-1760s, when newly-founded Augusta began to dominate the deerskin trade (Groover and Johnson 2001:4). Fort Moore was abandoned in 1766 and not reoccupied. This prominent archaeological site was first investigated in 1966 by Dr. William E. Edwards of the University of South Carolina. Later, an avocational archaeologist named J. Walter Joseph conducted excavations at the site(s) from 1969-1970. Fort Moore/Savano Town was listed on the NRHP in 1973. It received no archaeological attention until 2001, when limited investigations were conducted by the Savannah River Archaeological Research Program to evaluate the condition of the site(s) (Groover and Johnson 2001). Fort Moore/Savano Town is not within the visual or audible range of the current project.

### 3.3 Archaeological Survey

Archaeological field investigations were conducted February 16-17 by David Baluha. The initial discovery transect extended down the center of the 4,850-foot-long and 100-foot-wide proposed ROW. Where possible, shovel tests were excavated every 100 feet along this transect. Each shovel test measured approximately one foot in diameter and was excavated until reaching culturally sterile soil, the depth of which varied across the survey stands. The fill from all shovel tests was sifted through one-quarter-inch mesh hardware cloth. The investigator recorded information relating to each shovel test and soil profile in field notebooks. This information included the content (e.g., presence or absence of cultural materials) and context (e.g., soil color, texture, stratification) of each test. Also noted was the environmental setting near each shovel test (e.g., hardwoods, marsh). All shovel tests were backfilled upon completion. The ground surface was also visually inspected. No shovel tests were excavated in wetlands, heavily disturbed or eroded areas, or on slopes greater than 15 degrees. During survey, shovel testing is complemented by

surface investigation. However, surface visibility varies across the project area. We have developed specific nomenclature to clarify the terminology used to describe the surface visibility observed at each site investigated. Table 2 summarizes the surface visibility nomenclature used during this investigation.

Table 2. Surface visibility conditions encountered in the project corridor.

Condition	Ground Exposure	Typical Location(s)
None	0%	graded gravel, paved, water
Poor	1-25 %	fallow, grassy, wooded
Fair	26-50 %	clearcut, graded, grassy
Good	51-75 %	railroad grade, side slope, fallow
Excellent	76-100 %	none

Archaeologist David Baluha encountered a variety of field conditions while conducting the archaeological survey (see Figures 3 and 4). Table 3 summarizes the field conditions encountered in the proposed ROW. The 4,850-foot-long and 100-foot-wide proposed ROW extends east from the Savannah River floodplain and extends around the northern perimeter of Urquhart Generating Station site facility. Shovel tests were excavated at 100-foot intervals along a single transect placed down the center of the proposed ROW. However, the proposed ROW changes directions between each pole location seven different times (see Table 3). Approximately 60 percent of the proposed ROW extends across developed or disturbed lands or wetlands. Developed or disturbed areas include gravel or paved parking lots and roads, graded areas, and earthen berms. A total of 20 shovel tests (or 40 percent of the proposed ROW) were excavated. No cultural resources were identified.

Table 3. Transect summary.

Transect	Reference Points	Length (feet)	Direction	Shovel Tests	Field Conditions	Visibility	Soils	
							Symbol	Name
1	PI 8→PI 7	400	86°	1-2	wooded	poor	Ch	Chewacla loam
				3-5	graded, grassy, roadbed	fair	UaB	Udorthents
2	PI 7→PI 6	400	26°	1	graded, grassy	fair	UaB	Udorthents
				2	wetlands	fair-good	VcD	Vaucluse-Ailey Complex, 6-15 percent slope
				3-4	graded, grassy	fair		
3	PI 6→PI 5	630	36°	1-3	paved parking lot	none	n/a	n/a
				4-5	pond	none	n/a	n/a
				6	graded, gravel road	none	UaB	Udorthents
4	PI 5→PI 4	620	95°	1	gravel road	none	UaB	Udorthents
				2	paved road	none		
				3-5	paved road, wooded, side slope	fair-good		
				6	grassy, side slope	none	VcE	Vaucluse-Ailey Complex, 15-23 percent slope
5	PI 4→PI 3	385	57°	1-2	paved road	none	n/a	n/a
				3	grassy, graded road shoulder		UaB	Udorthents
6	PI 3→PI 2	1,055	112°	1-4	paved parking lot	none	n/a	n/a
				5	wooded	poor	VcE	Vaucluse-Ailey Complex, 15-23 percent slope
				6	old railroad grade	good	UaB	Udorthents
				7-10	wooded	poor	DoA	Dothan loamy sand
7	PI 2→PI 1	1,400	181°	1-7	grassy, fallow	good	UaB	Udorthents
				8-12	clearcut, standing water	fair	DoA	Dothan loamy sand
				13-14	fallow			

### **3.4 Recommendations**

Archaeological survey of the Graniteville-South Augusta 230 kV Tie Line at the Urquhart Generating Station Site included background research and archaeological field investigations. No cultural resources were identified within the proposed ROW. Background research identified one NRHP-listed property (Fort Moore/Savano Town [38AK4 and 38AK5]) located 660 feet north of the proposed ROW. Dense woodlands buffer this NRHP-listed resource from the proposed ROW. Therefore, this NRHP-listed resource will not be directly or indirectly impacted by proposed improvements within the proposed ROW. The proposed project should be allowed to proceed as planned.

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March 28, 2017

David Baluha  
Brockington and Associates, Inc.  
498 Wando Park Blvd., Suite 700  
Mt. Pleasant, SC 29464

Re: Archaeological Survey of the Graniteville-South Augusta 230 kV Tie Line at the Urquhart  
Generating Station Site  
Aiken County, South Carolina  
SHPO Project No. 14-ED0099

Dear Mr. Baluha:

Thank you for your letter of March 6, 2017, which we received on March 7, regarding the above-named project. We also received the addendum report *Archaeological Survey of the Graniteville-South Augusta 230 kV Tie Line at the Urquhart Generating Station Site*, that you submitted as due diligence. This letter is for preliminary, informational purposes only and does not constitute consultation or agency coordination with our Office as defined in 36 CFR 800: "Protection of Historic Properties" or by any state regulatory process. The recommendation stated below could change once the responsible federal and/or state agency initiates consultation with our Office.

This survey covered the entire 4,850 feet long and 100 foot wide route of the proposed tie line. No archaeological sites or historic above-ground properties were identified. We accept the addendum report as final.

If you have any questions, please contact me at (803) 896-6168 or at [ejohnson@scdah.sc.gov](mailto:ejohnson@scdah.sc.gov).

Sincerely,

Elizabeth M. Johnson  
Director, Historical Services, D-SHPO  
State Historic Preservation Office